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Perspective Canada

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OCCASIONAL

Perspective Canada

ERRATA

Page	Table or Chart	Change
40	3.9	Insert subheading over last column "rate per 1,000 total births".
72	4.8	Last column incorrect: reads 50.1, 55.1, 85.7, 62.1, 58.5, 66.9, 54.5, 44.5, 87.2, 37.6, 72.7, 61.6; Should read: 49.9, 44.9, 14.3, 37.9, 41.5, 33.1, 45.5, 55.5, 12.8, 62.4, 27.3, 38.4.
108	5.16	In left hand stub, line 14 and line 16 change from millions to thousands.
141	6.34	Remove superscript (1) from title.
224	11.3	First line, column 2, change from 18.0 to 25.7 and column 3, change from 14.9 to 7.2.
225	11.5	Fifth line, column 3, change from 1.9 to 61.9.
247	12.15	Add superscript (1) to final (6th) column, eighth line.
282	13.27	Add "1972" after title.
283	13.28	Add superscripts (1) and (2) to the two column headings. Footnotes to read: 1) As at February 1974 2) As at August 1972
297	14.14	Fourth column, change last figure from 45,661 to 45,670.

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Perspective Canada

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This publication is a compendium of some of the major social statistical time series available in Canada. Although there has been a growing demand for the construction of social indicators, there is no consensus on how to define them. It may very well turn out that for a period of time at least, social indicators will be those social statistics which by constant use in analysis and reference will be perceived as barometers of social change.

This volume contains data that have this potential use. The selection criteria included the relevance of the statistics to social concerns, their ability to portray change over time, and their potential for showing distributional aspects by geography, occupation, age, sex, schooling and other characteristics.

Much of this report was prepared in the Office of the Senior Adviser on Integration, with considerable assistance from other groups in Statistics Canada, and other federal government departments. This help is gratefully acknowledged. Statistics Canada would welcome comments and suggestions for improvement to this report. These should be addressed to H.J. Adler, Senior Adviser on Integration.

SYLVIA OSTRY,

Chief Statistician of Canada.

SYMBOLS

. .	figures not available.
. . .	figures not appropriate or not applicable.
—	nil or zero.
- -	amount too small to be expressed.
p	preliminary figures.
r	revised figures.
n.e.s.	not elsewhere specified

In some tables, figures will not add to totals, because of rounding.

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Introduction

QUALITY OF LIFE IN CANADA

As the 1960s drew to a close, commitment to the single-minded pursuit of economic growth began to lessen in western societies. Policymakers and social scientists, as well as the media, commented increasingly on the "quality of life". The gist of this commentary was that there are several dimensions of individual and social well-being that need more attention by decision-makers and statisticians. As we move through the 1970s, the demands grow for a broad conception of the non-economic aspects of our life. Statistics Canada is moving on several fronts to make its statistical system increasingly responsive to these new demands. One facet of our activity is this compendium of social statistics.

Acknowledging that this publication is partly a response to growing public concern about the quality of life in Canada, it is appropriate to inquire as to its "message". We raise this question to make clear that statistics cannot in principle provide direct answers. In the first instance, a direct answer should be based on an assessment of the network of criteria for quality-of-life measurements that would be valid for most Canadians. We also need to know the relative importance of these criteria. Canada has yet to have a representative national inventory on this matter. Until one is conducted and shown to be reasonably accurate, it is best to leave Canadians to judge for themselves. This publication is issued in the belief that whatever an individual's criteria for assessing the quality of life, and however that quality is judged, it will be concerned with some questions for which the information in this compendium is relevant. To help Canadians make their own judgments and to provide insights into present conditions and possible ameliorations are the main reasons for issuing this compendium.

RAISON D'ÊTRE OF THE PORTRAIT

This then is a statistical portrait of the Canadian people, their activities, and their environments. Like all portraits, it reflects selectivity by the artist in the choice of themes and in the views from which various features are to be shown. Also, as the artist is limited to the tools available, so must this portrait be limited by the statistics currently at our disposal.

The presentation of a portrait often implies that there is some sense in which the artist sees the object of the portrait as a whole and something more than a mere collection of parts. The artist sees some interrelations among the parts, an organization or structure composed of the parts, which are integral to his image of the whole. Canadian society is the whole about which this portrait is concerned. In spite of the diversity of its peoples and its geography, Canada is organized by a common political system, a substantial degree of integration of regional economies, a fairly uniform system of laws, and even large elements of commonality in cultural heritage. For more than one hundred years, Canadian national institutions have guided the evolution of a distinctive form of adaptation to the environment and potentialities of the most northerly latitudes in the western hemisphere. This process is seen particularly in the reliance on a pattern of exports, and in development of sophisticated modern technologies, mainly in important urban centres that are primary sources of goods and services for the remainder of the country. The integrative forces of national institutions, transport networks, and markets are the clearly visible aspects, even though they are accompanied by major cultural variations associated with the diverse origins of the Canadian peoples. Furthermore, although the related political tensions may seem at various times to pose a threat to Canada as a whole, they have also spurred constant creativity in the political institutions that seek to strengthen the bonds among Canadian regions and take account of minority interests.

The information in this compendium should help the reader to make his own assessments of how Canada has been managing to deal with important social problems. To facilitate this appraisal, the following themes have been emphasized: population and family, health, schooling, the use of time, work, income, consumption, quality of the environment, housing, bilingualism, the native peoples, cultural diversity, and criminal justice.

LIMITATIONS OF THE DATA; THE FRAME OF THE PORTRAIT

The data needed to paint the ideal portrait, even within the rather narrow frame outlined above, are by no means fully available. There is great unevenness in the adequacy of available information among the various subjects of interest. All of the themes chosen for emphasis in this portrait suffer from deficiencies in data. That deficiency is particularly notable with regard to time allocation, quality of the environment, cultural diversity, and criminal justice.

We would have liked to concentrate our data on the "results" of the various social processes in question. In most cases, this turned out to be impossible, not only because much of the material does not lend itself to this treatment, but mainly because there is a general paucity of operational concepts to measure "results". Many of our statistics, particularly those referring to health, education and justice deal with inputs, costs, or means. These may be defined as the physical or financial components that are used and become embodied in the production of goods and services, e.g. the number of

hospital beds, the monetary cost of running the school system, or the number of policemen employed. Data on outputs or products (i.e. the services or goods delivered to consumers) are available in some instances. One can think here of the number of students who have graduated, the "output" of patient-days by hospitals, crimes cleared, or statistical publications produced. There exist, however, precious few data on actual results achieved. These can be described as the improvement, enjoyment, welfare, or utilities that goods or services render to the final beneficiaries, e.g., health obtained, knowledge acquired, or security from crime or hazardous activity. It must be admitted also that notions of input, outputs and results are at times tenuous or even circular. Thus the graduation of physicians might be viewed as the output of the education industry as well as an input into medical services. Another way of differentiating is to think of the data as progressively less recognizable as physical or financial identities. Indeed, some result indicators may shade into perceptual measures that probe, for instance, how individuals perceive their health status, their place in society, or the satisfaction they obtain from the pursuit of education. Here, Canada is not alone in lacking official data.

In numerous instances, of course, many more detailed data exist than we have used. We have tried to illustrate the concerns with broad and summary information.

For the reader who wishes to pursue particular subjects in greater depth, and to the extent existing data permit, we have listed the statistical sources for each chapter, and have also provided short reading lists of mainly Canadian material. It should be stressed that the reading lists do not aim for rigorous academic completeness, but merely list writings that the reader can use as a first step towards deepening his knowledge of each subject.

The areas of concern selected for inclusion in this volume are those that focus on the individual, are social rather than economic in content, and can be at least minimally quantified. Excluded, therefore, are such problems as national identity, constitutional issues, alienation, inflation, or foreign control of industry. The truly fundamental problems of personal being such as the spiritual life, love, and friendship, are obviously outside the domain of numerical calculus.

In life, concerns cannot be compartmentalized. They are interconnected and interrelated. Thus a healthy individual will, other things being equal, gain more from the educational process than a sick person. Members of one disadvantaged group such as low-income recipients frequently also find themselves among the less fortunates from the point of view of housing, justice, and the environment. Access to the benefits of publicly supported museums and theatres is obviously circumscribed by geographical limits. In emphasizing the distributional aspects, by region, income, education or other variables, we have tried to show some of the interrelationships of the various concerns. These instances, however, are illustrative only, for it is impossible to deal with them exhaustively.

HIGHLIGHTS

The chapters on population growth and family formation provide the essential framework of information within which the broad social concerns are described.

Without health, work cannot be carried out effectively or meaningfully, leisure time cannot be enjoyed, education is difficult to acquire and, for some disabilities, even the highest level of income is insufficient recompense. Thus if there is one fundamental concern, it is health – mental and physical. Statistically, however, health is measured mainly by its absence, and the concerns therefore deal with the prevalence of illness, the availability and accessibility of protective services, the external factors influencing health, and some of the costs of maintaining it.

Education, almost to the same degree as health, is a prerequisite for modern life. Personal enjoyment and fulfilment are generally assumed to be improved by education. The labour market demands a skilled work force and democracy presupposes a literate electorate. The acquisition and provision of education for personal development and economic, political and cultural participation are thus both personal and societal concerns.

The allocation of time between rest and work, effort and relaxation, is an ancient concern – and one which has found formal expression in both temporal and spiritual injunctions. Industrialization and specialization both of the work and recreational aspects of man's time have only heightened this concern. Associations, governments, businesses and religious institutions all endeavour to influence, allocate and legislate our use of time. The data pertaining to leisure and rest are not too plentiful, but that portion of time spent in paid work can be amply illustrated by statistics. The concern with work is, of course, broader than merely how long we perform it. The worthwhileness of work, both from a monetary and social point of view, touches most of us deeply. While, as usual, economic data pertaining to hours of work, pay, availability of employment and characteristics of the labour force predominate, statistics on the social aspects in terms of labour relations are not entirely lacking. Quantification of work satisfaction, on the other hand, is scarce because a good deal of both conceptual and statistical work remains to be done.

For many people a satisfactory income, and its concomitant command over goods and services, is

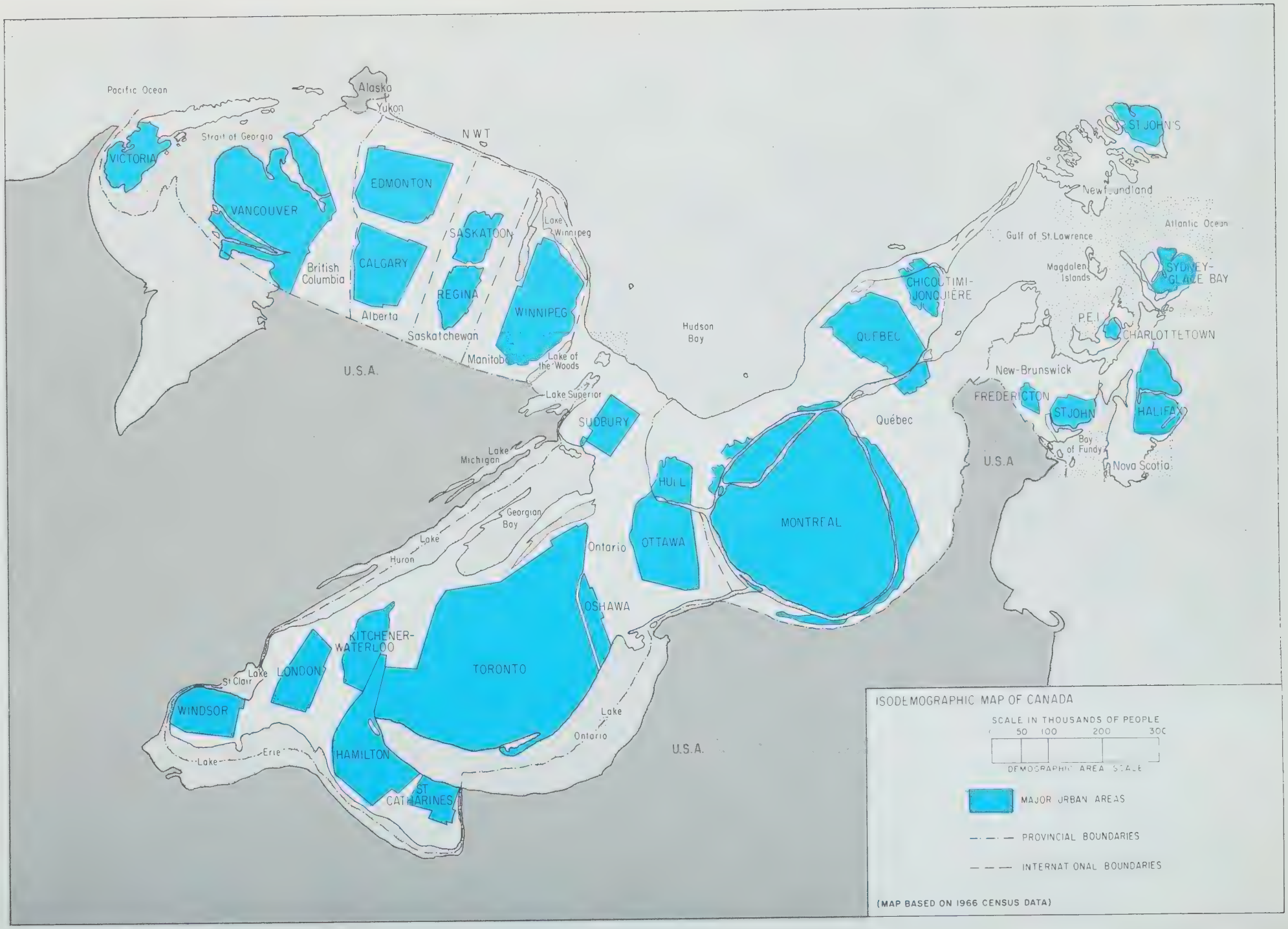
probably next to health in order of importance. Changes in levels of income, however, are often dependent on health, the educational attainments and skills of the working population, and the opportunities for gainful employment. It is only, therefore, after having dealt with these other aspects of the human condition that we focus on the level of income, its distribution between income classes of the population, its regional disparities, its basic sources as well as its final disposition on consumer goods and services, taxes and savings.

While the problems in health, education and the allocation of time have always, within certain limits, been subject to human influences and manipulations, the external environment was for a long time considered as both a given datum and limitless in its extent. We now know, however, that it is neither. It is very much subject to human violation – and hence human control. The degrees of violation and control are still largely subjects of research. While many natural phenomena are quantifiable and have indeed been measured, much work remains to be done in this area.

The problem of the adequacy, availability and equitable distribution of shelter has been of long-run human concern, but preoccupations of governments with housing, particularly with aid to individuals for its acquisition and with official encouragement for home-ownership, are of more recent origin.

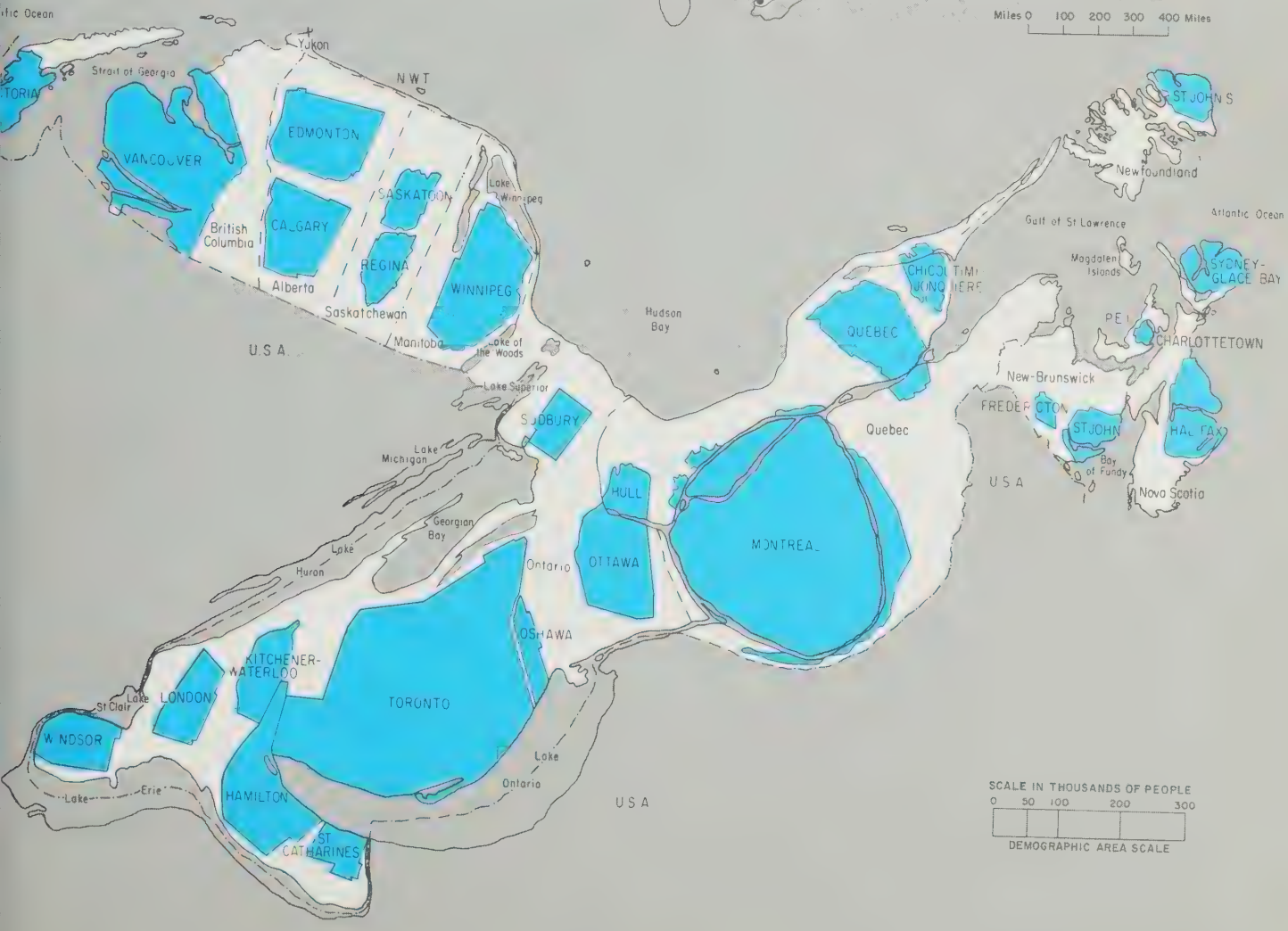
In addition to the physical external environment that influences the lifestyle of individuals, there are also social environmental factors that are part of the existing surroundings and which impinge on our daily lives. The question of language rights and their exercise as well as some other specific Canadian concerns are, we believe, currently pertinent Canadian issues. Thus chapters deal with bilingualism, native peoples and multiculturalism. The presence or absence of personal safety and free enjoyment of life and property are the concern of the chapter on criminal justice.

Introductory Isodemographic Maps


Pacific Ocean
Alaska
Yukon
NWT
Strait of Georgia
VICTORIA
VANCOUVER
British Columbia
EDMONTON
CALGARY
Alberta
SASKATOON
REGINA
Saskatchewan
Lake Winnipeg
WINNIPEG
Manitoba
Lake of the Woods
U.S.A.
Hudson Bay
Lake Superior
SUDBURY
Lake Michigan
Georgian Bay
Lake Huron
Ontario
HULL
OTTAWA
MONTREAL
Québec
QUEBEC
CHICOUTIMI-JONQUIÈRE
OSHAWA
TORONTO
KITCHENER-WATERLOO
LONDON
Lake St Clair
WINDSOR
Lake Erie
HAMILTON
ST CATHARINES
Lake Ontario
U.S.A.
ST JOHN'S
Newfoundland
Atlantic Ocean
Gulf of St. Lawrence
Magdalen Islands
SYDNEY-GLACE BAY
P.E.I.
CHARLOTTETOWN
New-Brunswick
FREDERICTON
ST JOHN
HALIFAX
Bay of Fundy
Nova Scotia
U.S.A
ISODEMOGRAPHIC MAP OF CANADA
SCALE IN THOUSANDS OF PEOPLE
50 100 200 300
DEMOGRAPHIC AREA SCALE
MAJOR URBAN AREAS
PROVINCIAL BOUNDARIES
INTERNATIONAL BOUNDARIES
(MAP BASED ON 1966 CENSUS DATA)

TWO CARTOGRAPHIC FACES OF CANADA: Its Land and Its People

On the top is a conventional map showing the land-area of the provinces, Census Metropolitan areas and selected Census major urban areas.
On the bottom, and opposite, is an isodemographic map showing the same information but with the areas of the map units proportional to their population



Population Growth, Distribution and Composition

1

This chapter and the following one, on family formation and composition, provide some demographic background for this compendium of social statistics. The data deal with population growth and its components (natural increase and net migration); population distribution among provinces and the metropolitan, urban and rural areas; composition with respect to sex, age and marital status; and family formation, dissolution, and composition.

POPULATION GROWTH AND DISTRIBUTION

Population growth and redistribution comprise two fundamental dimensions of change in Canadian society. A review of these changes starts naturally with consideration of the long-term change in national population size, and one important indicator of such change is the historical pattern of annual growth rates. These growth rates affect and are affected by major swings in the course of economic growth and social change. For example, those born during the post-war baby boom are now in the peak ages for family formation, and the consumer demands of these young families have helped to stimulate an expansion of economic activity. Associated in part, at least, with this same development are social changes that may be less apparent to the average observer but nevertheless of major importance, such as the trend towards smaller families and emerging new attitudes towards work. When this generation ages beyond the main years of family formation and is later replaced by the relatively small cohorts of the 1960s and 1970s, further economic and social impacts can be expected.

GROWTH COMPONENTS

Underlying the pattern of basic change in population size are the variations in the rates of births and deaths, and in historical waves of immigration and emigration. In studying fertility variations, it is important to appreciate the different properties of alternative fertility indicators. While the crude birth rate[1] roughly measures the relative weight of births in the population each year, it is strongly influenced by the age distribution of the population. Hence the importance of other indicators that are less sensitive to these effects, such as the total fertility rate[1] – the sum of age-specific birth rates. With regard to external migration, it is very important to note that there is no direct measure of total Canadian emigration currently available. Annual figures on Canadian emigration to the United States are made available by the U.S. and Statistics Canada is making strong efforts now to obtain similar working agreements with a number of other countries; since figures on total emigration are generally indirect estimates, their accuracy cannot be easily assessed.

PROVINCIAL SHARES

The current and future distribution of population across Canada is, and will be, the result of migration (internal and external) and regional differences in birth and death rates. Recent shifts in the rank order of provinces regarding the crude birth rate, and the implied changes in the provincial shares of the national population, are especially notable at this time.

METROPOLITAN GROWTH

Canada has changed from a predominantly rural society to one of the most highly urbanized societies in the world. Close to 60 per cent of the national population now resides in metropolitan areas, and projections indicate that the proportion will rise substantially by the end of this century. Much of this rapid metropolitan growth in the past has been due to heavy streams of internal and external migration to these areas. However, within each area (and particularly as its population gets larger and larger) the natural increase of its own population increasingly becomes the predominant force. Meanwhile, this swelling of big-city populations has pushed beyond the urban core areas to cause the so-called "suburban" population explosion, with all of its implications for the use of land that once was rural.

POPULATION COMPOSITION

The concept of "population composition" generally refers to the distribution of population according to such variables as sex, age, ethnic origin, language, and education. Some of these aspects of population composition are reviewed in other chapters of this compendium. This chapter deals with three of the most basic aspects of demographic composition – sex, age, and marital status. Each of these can be a powerful element in social change, and each in turn is affected by various developments in the society. For example, as the age composition changes, so can the crude birth rate. Similarly, the educational-attainment variations within the population can be key factors influencing income levels and problems associated with low-income status and regional income disparities. There are, indeed, few Canadian social problems that are not crucially affected by some population-composition variable.

A dramatic illustration of the influence of age composition on social concerns and attitudes is the obvious impact of the post-war baby boom on the entertainment industry in the past nine years. We will likely see another dramatic illustration later in this

[1] See Concepts and Definitions, below.

century when the age distribution becomes relatively "fat" at the middle and older ages, and relatively "thin" at the ages of labour-force entry and family formation.

CONCEPTS AND DEFINITIONS

URBAN AND RURAL POPULATION

The urban population figures for the 1871-1911 period refer to incorporated cities, towns and villages of 1,000 and over only. From 1921 to 1951 the percentages are estimates based on the 1961 Census definition of "urban" which includes:

(a) incorporated cities, towns and villages of 1,000 and over (CTVs)
(b) unincorporated towns and villages of 1,000 and over
(c) unincorporated suburbs adjacent to CTVs of 5,000 and over and which had a population density of 1,000 persons per square mile.

In 1971, the percentage of urban population is based on the 1971 Census definition of urban which was changed only slightly from the 1961 definition (see 1971 Census bul., 1.1-9, Catalogue 92-709).

Cities of 100,000 population and over are defined by the municipal boundaries of each city. They are not to be confused with census metropolitan areas (CMAs) or urban agglomerations that include built-up areas surrounding the municipal "city".

COMPONENTS OF POPULATION CHANGE

The rate of natural increase (NI) is 100 times the difference between births and deaths, divided by the population at the start of the period in question.

The net migration rate is the rate of the actual increase minus the rate of natural increase.

CRUDE BIRTH RATE

The crude birth rate (CBR) is the number of births per 1,000 of mid-year population. The CBR measures the relative weight of births in the population, and it is affected by the age-sex composition of the population.

TOTAL FERTILITY RATE

The total fertility rate (TFR) is 1,000 times the sum of the age-specific fertility rates.

Age-specific fertility rate at age "a" is equal to: $\frac{\text{number of births among women at age "a"}}{\text{total number of women at age "a"}}$

The TFR for a given year is an index of the level of fertility among women in the childbearing ages of that year.

IMMIGRANTS

It should be noted that the number of immigrants entering Canada during a year is not necessarily equal to the number of immigrants that would be counted in the population at the end of that year. The former number is reduced by such factors as mortality and emigration.

CENSUS METROPOLITAN AREAS

A census metropolitan area is defined generally as the main labour market area that includes and surrounds a continuous built-up area, where the latter area has a population of 100,000 or more. Following is a list of 1971 CMAs used to calculate the percentage share of population living in CMAs from 1951 to 1971:

Newfoundland	St. John's
Nova Scotia	Halifax
New Brunswick	Saint John
Québec	Chicoutimi-Jonquière, Montréal, Québec
Ontario	Hamilton, Kitchener, London, Ottawa-Hull, St. Catharines, Sudbury, Thunder Bay, Toronto, Windsor
Manitoba	Winnipeg
Saskatchewan	Regina, Saskatoon
Alberta	Calgary, Edmonton
British Columbia	Vancouver, Victoria

The reader should note that CMA populations are based on 1971 CMA boundaries. Accordingly, those areas which only became CMAs in 1971 are included as CMAs prior to 1971. Secondly, as the 1971 CMA boundaries are kept constant for all dates prior to 1971, the CMA populations are larger than they would be if the boundaries of the pertinent census year were used.

DEPENDENCY RATIOS

The youth and old-age dependency ratios reflect features of the age composition. The former shows the relation between the size of the child population and that of the mostly-working age population. The old-age dependency ratio shows the relation between the size of the mostly retired population and that of the mostly working-age population.

Table 1.1
TOTAL POPULATION AND URBAN-RURAL POPULATION DISTRIBUTION[1]

	Total population	Rural population	Rural farm population	Urban population	CITIES OF 100,000 POPULATION AND OVER	
					Population	Number of cities
	thousands		per cent			
1871	3,689	81.7	..	18.3	–	–
1881	4,325	76.7	..	23.3	–	–
1891	4,833	70.2	..	29.8	–	–
1901	5,371	65.1	..	34.9	8.9	2
1911	7,207	58.2	..	41.8	15.0	4
1921	8,788	52.6	..	47.4	18.9	6
1931	10,377	47.5	32.0	52.5	22.5	7
1941	11,507	44.3	26.2	55.7	23.0	8
1951	14,009	37.6	19.7	62.4	23.3	10
1961	18,238	30.3	11.8	69.7	22.8	12
1971	21,568	23.9	6.6	76.1	26.8	19

1) See Concepts and Definitions for a definition of "urban".

Table 1.2
COMPONENTS OF POPULATION GROWTH

	Population at beginning of period	Actual increase[1]	Births	Deaths	Natural increase[2]	Immigrants	Emigrants[3]	Net migration[4]
	thousands							
1921-31	8,788	1,589	2,415	1,055	1,360	1,203	974	229
1931-41	10,377	1,130	2,294	1,072	1,222	150	242	- 92
1941-51[5]	11,507	2,141	3,186	1,214	1,972	548	379	169
1951-61	14,009	4,229	4,468	1,320	3,148	1,543	462	1,081
1961-71	18,238	3,330	4,105	1,497	2,608	1,429	699	730

1) The **actual increase** *in population is the difference between the population at the beginning of the decade and the population at the end of the decade.*
2) **Natural increase** *is the difference between births and deaths.*
3) The number of **emigrants** *shown is a residual estimate, subject to a large margin of error. The residual method is used here because Canada does not have complete coverage of emigrants to all countries. Therefore, the number of emigrants is the difference between net migration and the number of immigrants.*
4) **Net migration** *is the difference between the actual increase and the natural increase.*
5) Newfoundland is excluded prior to the 1951-61 decade.

Table 1.3
COMPONENTS OF POPULATION CHANGE[1]

	1921-31	1931-41	1941-51	1951-61	1961-71
			rates of actual change for the decade		
CANADA	18.1	10.9	18.6	30.2	18.3
Newfoundland	...	...	...	26.7	14.0
Prince Edward Island	- 0.7	8.0	3.6	6.3	6.7
Nova Scotia	- 2.1	12.7	11.2	14.7	7.0
New Brunswick	5.2	12.0	12.7	15.9	6.1
Quebec	21.8	15.9	21.7	29.7	14.6
Ontario	17.0	10.4	21.4	35.6	23.5
Manitoba	14.8	4.2	6.4	18.7	7.2
Saskatchewan	21.7	- 2.8	- 7.2	11.2	0.1
Alberta	24.3	8.8	18.0	41.8	22.2
British Columbia	32.3	17.8	42.5	39.8	34.1
Yukon and Northwest Territories	10.1	25.1	48.2	49.9	41.4
			rates of natural increase		
CANADA	15.4	11.8	17.1	22.4	14.3
Newfoundland	...	...	...	30.7	23.7
Prince Edward Island	9.3	11.0	16.6	17.9	13.1
Nova Scotia	9.7	11.2	17.9	20.0	13.2
New Brunswick	14.6	14.5	21.8	23.2	14.8
Quebec	20.9	16.0	22.1	24.6	14.2
Ontario	11.6	8.1	13.3	20.7	13.8
Manitoba	16.0	11.2	14.7	19.3	13.0
Saskatchewan	20.1	14.3	15.1	20.7	13.7
Alberta	17.8	14.5	18.9	28.2	18.0
British Columbia	9.1	5.9	14.2	19.2	11.8
Yukon and Northwest Territories	- 1.2	3.2	15.6	36.0	35.8
			net migration rates		
CANADA	2.7	- 0.9	1.5	7.7	4.0
Newfoundland	...	...	...	- 4.0	- 9.7
Prince Edward Island	- 10.0	- 3.0	- 13.1	- 11.6	- 6.4
Nova Scotia	- 11.7	1.5	- 6.7	- 5.3	- 6.1
New Brunswick	- 9.3	- 2.4	- 9.1	- 7.2	- 8.7
Quebec	0.9	- 0.1	- 0.4	5.1	0.4
Ontario	5.4	2.3	8.0	14.9	9.7
Manitoba	- 1.2	- 7.0	- 8.3	- 0.6	- 5.6
Saskatchewan	1.6	- 17.1	- 22.3	- 9.5	- 13.6
Alberta	6.5	- 5.7	- 0.9	13.5	4.2
British Columbia	23.3	11.9	28.2	20.6	22.3
Yukon and Northwest Territories	11.3	21.8	32.6	13.9	5.6

1) See Concepts and Definitions for an explanation of the components of population change.

Chart 1.4

ANNUAL GROWTH RATES OF THE CANADIAN POPULATION

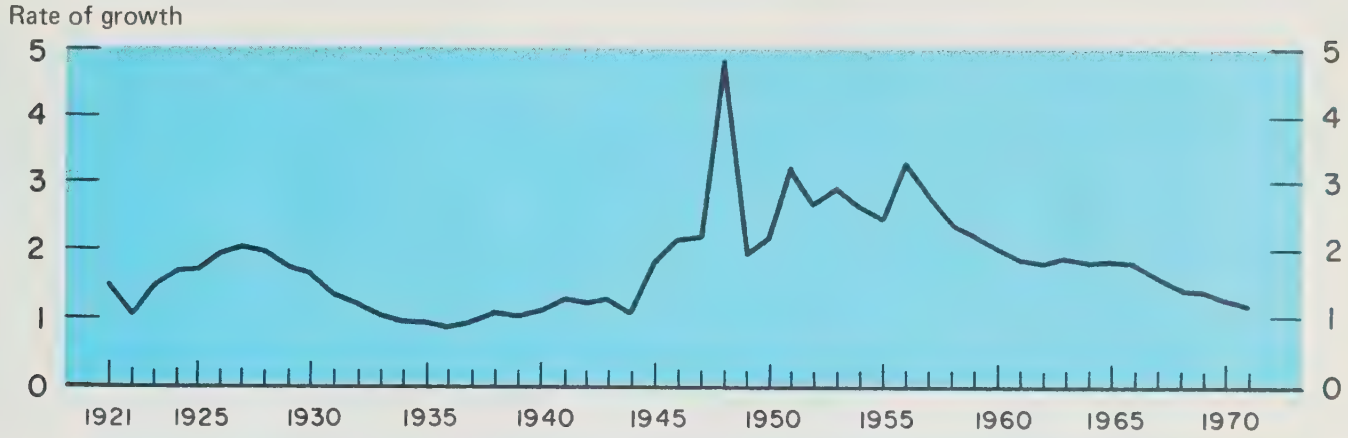
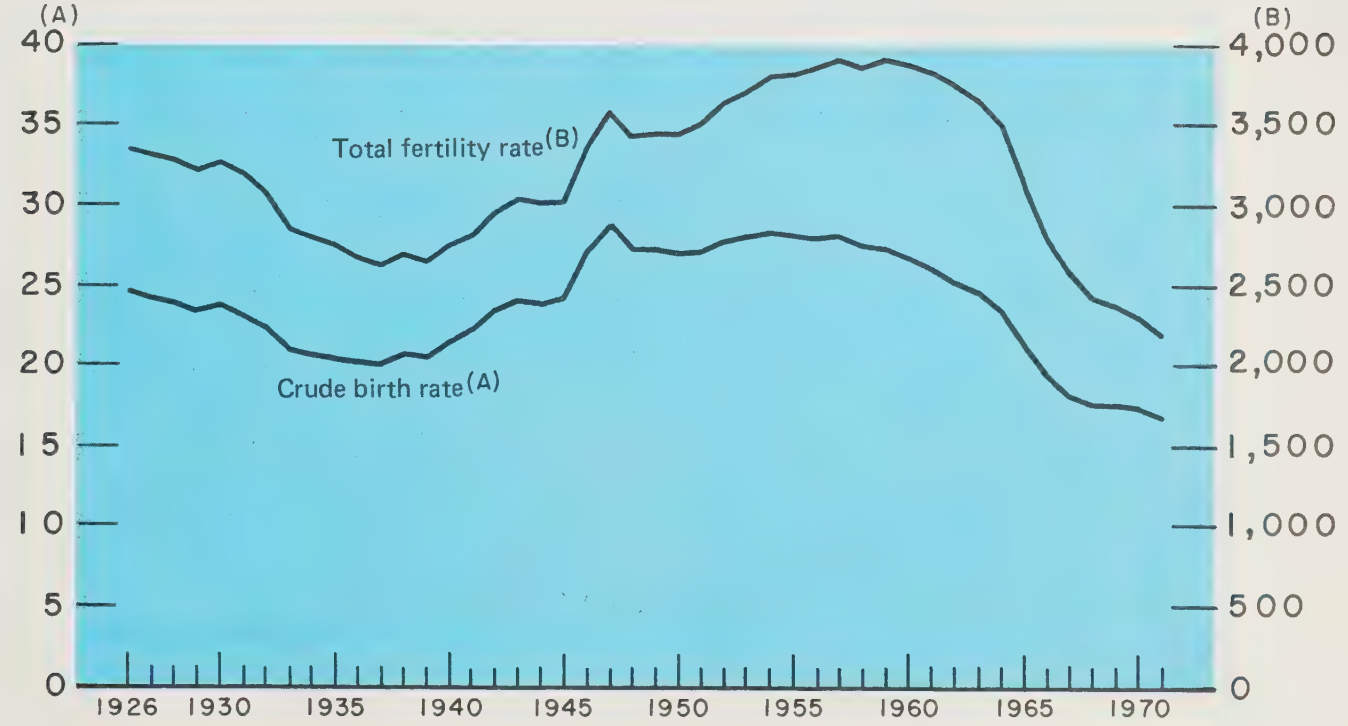


Chart 1.5

CRUDE BIRTH RATE AND TOTAL FERTILITY RATE (1,2)

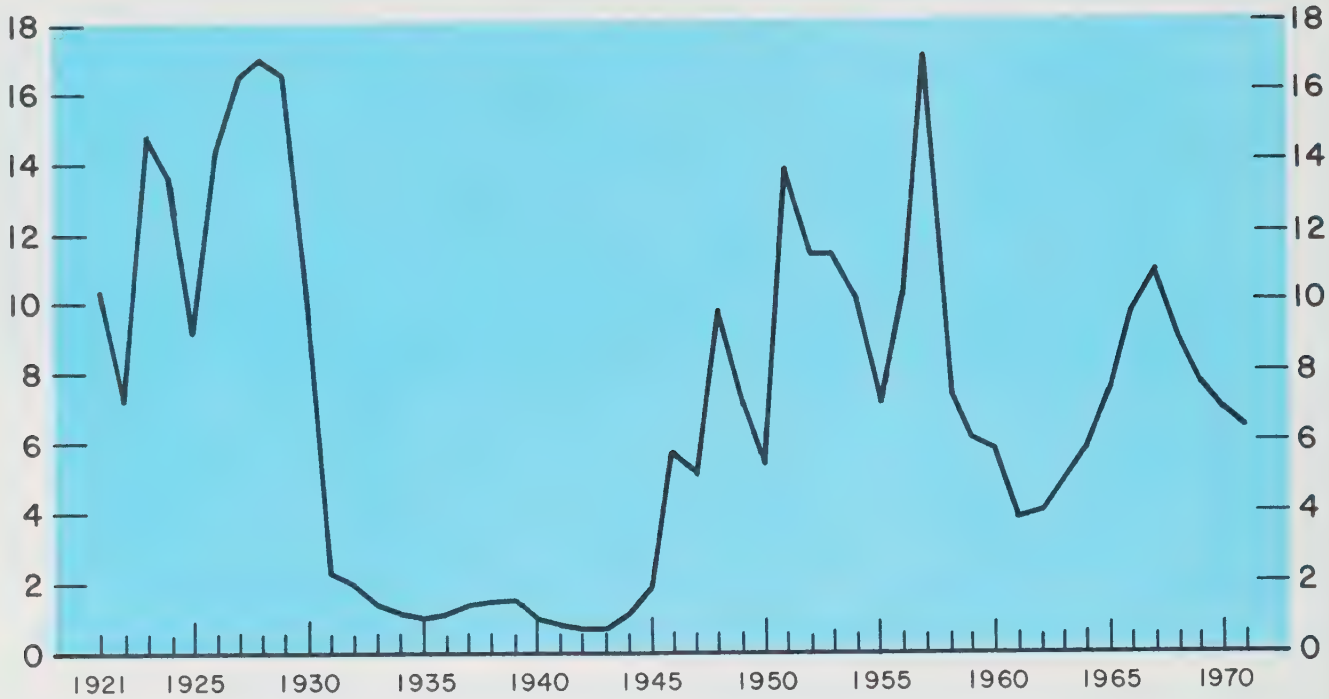


(1) See Concepts and Definitions for explanation.

(2) Data for Newfoundland not available. Data for Yukon and Northwest Territories not available prior to 1950.

Chart 1.6

IMMIGRATION RATE(1)



(1) Immigration rate = 1000 $\frac{\text{(Immigrants)}}{\text{(Population)}}$

Table 1.7
PROVINCIAL TOTAL FERTILITY RATES[1]

	1931	1941	1951	1956	1961	1966	1971
CANADA	3,200	2,832	3,503	3,858	3,840	2,812	2,190
Prince Edward Island	3,521	3,228	4,189	4,542	4,881	3,578	2,890
Nova Scotia	3,397	3,097	3,682	4,092	4,159	3,150	2,501
New Brunswick	3,990	3,688	4,378	4,576	4,543	3,312	2,670
Quebec	4,001	3,389	3,775	3,904	3,700	2,646	1,889
Ontario	2,648	2,403	3,222	3,657	3,742	2,790	2,221
Manitoba	2,815	2,506	3,302	3,680	3,936	2,944	2,542
Saskatchewan	3,478	2,809	3,590	4,077	4,221	3,284	2,688
Alberta	3,377	2,833	3,721	4,282	4,267	3,066	2,435
British Columbia	2,171	2,305	3,201	3,899	3,785	2,659	2,135
Yukon	..	..	5,019	4,756	5,376	3,626	3,143
Northwest Territories	..	..	6,159	6,315	7,189	6,154	4,881

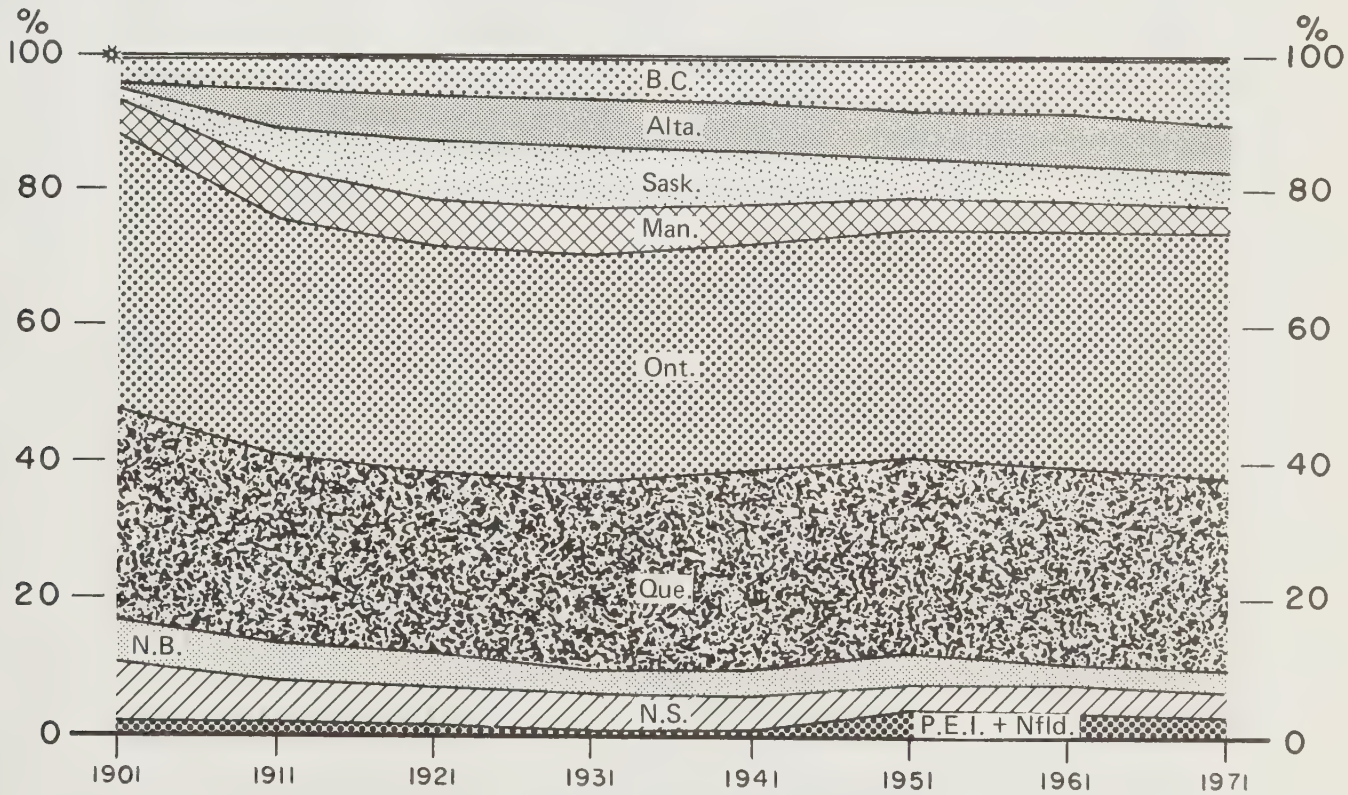
1) See Concepts and Definitions for an explanation; data for Newfoundland not available.

Table 1.8
URBAN POPULATION AS A PERCENTAGE OF TOTAL POPULATION[1]

	1901	1911	1921	1931	1941	1951	1961	1971
CANADA[2]	34.9	41.8	47.4	52.5	55.7	62.4	69.7	76.1
Newfoundland	—	—	—	—	—	43.3	50.7	57.2
Prince Edward Island	14.5	16.0	18.8	19.5	22.1	25.1	32.4	38.3
Nova Scotia	27.7	36.7	44.8	46.6	52.0	54.5	54.3	56.7
New Brunswick	23.1	26.7	35.2	35.4	38.7	42.8	46.5	56.9
Quebec	36.1	44.5	51.8	59.5	61.2	66.8	74.3	80.6
Ontario	40.3	49.5	58.8	63.1	67.5	72.5	77.3	82.4
Manitoba	24.9	39.3	41.5	45.2	45.7	56.0	63.9	69.5
Saskatchewan	6.1	16.1	16.8	20.3	21.3	30.4	43.0	53.0
Alberta	16.2	29.4	30.7	31.8	31.9	47.6	63.3	73.5
British Columbia	46.4	50.9	50.9	62.3	64.0	68.6	72.6	75.7

1) See Concepts and Definitions for a definition of "urban".
2) Excludes Yukon and Northwest Territories.

Chart 1.9
PROVINCIAL SHARES OF THE NATIONAL POPULATION



** Yukon and N.W.T. less than 1%*

Table 1.10
POPULATION IN CENSUS METROPOLITAN AREAS AS A PERCENTAGE OF TOTAL POPULATION[1]

	1951	1956	1961	1966	1971
CANADA	45.7	48.2	51.0	53.4	55.1
Newfoundland	22.0	22.0	23.3	23.8	25.2
Prince Edward Island	—	—	—	—	—
Nova Scotia	21.5	24.5	26.2	27.8	28.2
New Brunswick	15.6	15.9	16.4	16.9	16.8
Quebec[2]	47.3	49.0	51.8	54.3	55.7
Ontario[2]	57.8	60.0	62.0	64.5	65.8
Manitoba	46.0	48.6	51.7	52.8	54.7
Saskatchewan	15.4	18.6	22.6	26.0	28.8
Alberta	35.8	42.4	48.0	51.7	55.2
British Columbia	60.6	59.7	60.6	59.2	58.5

1) Census Metropolitan Area (CMA) populations 1951 to 1971 are based on 1971 boundaries. See Concepts and Definitions for further clarification.
2) Ottawa-Hull is included as a CMA in Ontario.

Table 1.11
CENTRAL CITY AND SUBURBAN PERCENTAGE SHARES OF CENSUS METROPOLITAN AREA POPULATIONS[1]

	CENTRAL CITY PORTION			SUBURBAN PORTION		
	1951	1961	1971	1951	1961	1971
Montreal	67.3	56.8	44.3	32.7	43.2	55.7
Toronto	55.4	36.6	27.1	44.6	63.4	72.9
Vancouver	58.8	46.5	39.4	41.2	53.5	60.6
Ottawa-Hull	64.8	58.7	50.2	35.2	41.3	49.8
Winnipeg	66.1	55.8	45.6	33.9	44.2	54.4
Hamilton	79.8	68.3	62.0	20.2	31.7	38.0
Edmonton	89.4	91.0	88.4	10.6	9.0	11.6
Quebec City	58.3	48.5	38.7	41.7	51.5	61.3
Calgary	100.0	100.0	100.0	—	—	—
St. Catharines-Niagara	32.2	33.6	36.2	67.8	66.4	63.8
London	71.8	74.8	78.0	28.2	25.2	22.0
Windsor	..	81.1	78.6	..	18.9	21.4
Kitchener	47.1	48.9	49.3	52.9	51.1	50.7
Halifax	73.1	62.6	54.8	26.9	37.4	45.2
Victoria	44.7	35.3	31.5	55.3	64.7	68.5
Sudbury	70.6	62.9	58.2	29.4	37.1	41.8
Regina	98.2	98.6	99.1	1.8	1.4	0.9
Chicoutimi-Jonquière	26.9	24.8	25.4	73.1	75.2	74.6
St. John's (Nfld.)	67.2	69.9	66.8	32.8	30.1	33.2
Saskatoon	100.0	100.0	100.0	—	—	—
Thunder Bay	96.6	96.7	96.7	3.4	3.3	3.3
Saint John (N.B.)	89.5	88.1	83.4	10.5	11.9	16.6

1) Constant 1971 boundaries were used to compute the population in the CMAs and their component parts prior to 1971. Some 1971 CMAs were not CMAs prior to 1971. See Concepts and Definitions for CMA definition.

Table 1.12
SEX RATIOS BY FIVE-YEAR AGE GROUPS[1]

	1911	1921	1931	1941	1951	1961	1971
ALL AGES	1,129	1,064	1,074	1,053	1,024	1,022	1,002
0- 4	1,023	1,018	1,023	1,031	1,043	1,047	1,049
5- 9	1,020	1,017	1,022	1,024	1,044	1,047	1,046
10-14	1,030	1,021	1,022	1,022	1,035	1,044	1,046
15-19	1,073	1,012	1,022	1,019	1,012	1,036	1,033
20-24	1,212	975	1,037	1,007	975	984	994
25-29	1,295	1,026	1,090	1,020	956	1,031	1,022
30-34	1,275	1,109	1,081	1,047	967	1,027	1,025
35-39	1,234	1,180	1,091	1,092	1,016	986	1,042
40-44	1,211	1,191	1,166	1,063	1,054	1,002	1,031
45-49	1,174	1,196	1,220	1,099	1,086	1,031	980
50-54	1,158	1,170	1,208	1,145	1,057	1,054	972
55-59	1,132	1,121	1,187	1,188	1,052	1,054	979
60-64	1,129	1,120	1,140	1,159	1,093	1,005	966
65-69	1,068	1,114	1,093	1,119	1,110	969	914
70-74	1,037	1,066	1,067	1,049	1,037	951	816
75-79	1,037	995	1,029	981	999	958	755
80-84	979	932	944	911	904	888	723
85-89	927	867	828	841	795	809	684
90 +	846	758	701	694	673	657	595

1) Sex ratio = 1,000 (males/females); excludes Newfoundland in censuses prior to 1951.

Table 1.13
MEDIAN AGE AND DEPENDENCY RATIOS[1]

	Median age[1]	Youth dependency ratio[2]	Old-age dependency ratio[3]
	years		
1901	22.7	56.8	8.3
1911	23.8	52.9	7.5
1921	23.9	56.6	7.9
1931	24.7	50.3	8.8
1941	27.0	42.4	10.2
1951	27.7	49.0	12.5
1961	26.3	58.1	13.1
1971	26.3	47.5	13.0
Newfoundland	20.7	65.9	10.9
Prince Edward Island	24.8	55.4	19.3
Nova Scotia	25.4	50.6	15.2
New Brunswick	23.9	53.9	14.5
Quebec	25.6	46.6	10.8
Ontario	27.2	45.5	13.3
Manitoba	26.8	47.3	15.8
Saskatchewan	26.7	50.9	17.2
Alberta	24.9	51.7	11.9
British Columbia	28.0	44.5	15.0
Yukon	24.1	55.3	4.4
Northwest Territories	19.1	78.2	3.9

1) Fifty per cent of the population is below the median age.

2) $\left(\frac{\text{Persons aged 0-14}}{\text{Persons aged 15-64}}\right) \times 100.$

3) $\left(\frac{\text{Persons aged 65 and over}}{\text{Persons aged 15-64}}\right) \times 100.$

Table 1.14
POPULATION DISTRIBUTION BY BROAD AGE GROUPS, ROUGHLY CORRESPONDING TO MAJOR LIFE-CYCLE STAGES[1]

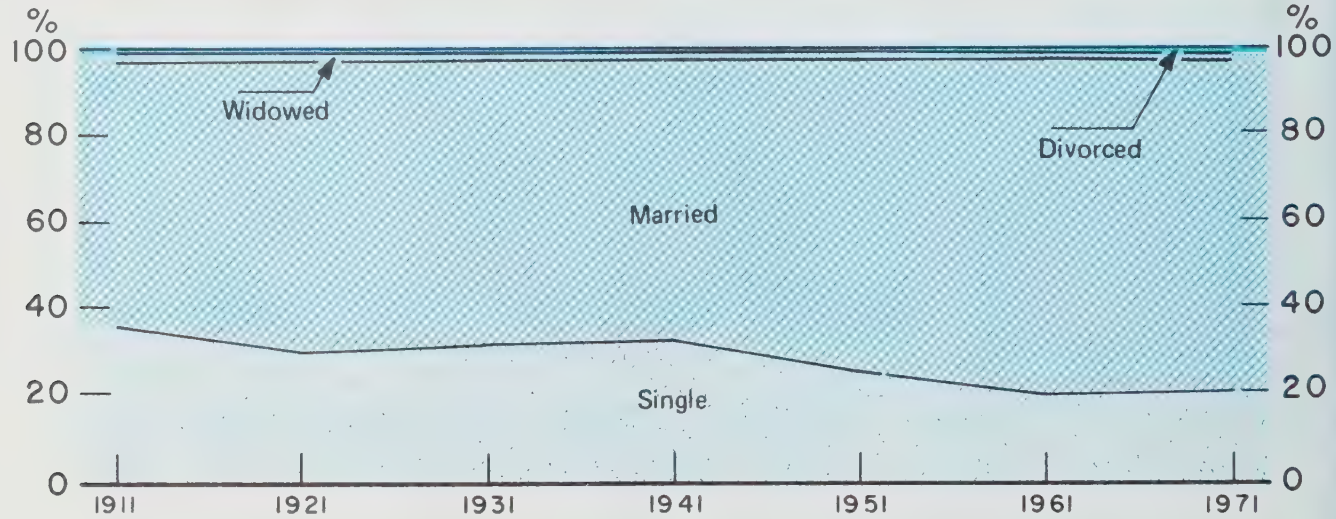
	Age span	1891	1901	1911	1921	1931	1941	1951	1961	1971
	years					per cent				
ALL AGES		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Childhood	0-8	22.5	21.3	21.2	21.7	19.1	16.4	20.4	21.6	16.7
Infancy	Under 1	2.5	2.4	2.6	2.3	1.9	1.9	2.5	2.6	1.6
Early childhood	1-5	12.6	12.0	12.1	12.2	10.6	9.0	11.9	12.2	8.7
Late childhood	6-8	7.4	6.9	6.5	7.2	6.6	5.4	6.0	6.8	6.4
Youth	9-17	20.4	19.4	17.5	18.3	18.6	17.3	14.4	17.3	19.0
Pre-adolescence	9-11	7.1	6.7	6.1	6.6	6.4	5.6	5.2	6.5	6.5
Early adolescence	12-14	6.8	6.4	5.8	6.0	6.2	5.8	4.7	5.9	6.4
Late adolescence	15-17	6.6	6.3	5.7	5.6	6.1	5.9	4.5	5.0	6.1
Adulthood	18-64	52.5	54.3	56.7	55.2	56.7	59.6	57.4	53.5	56.2
Early maturity	18-24	14.2	13.7	13.7	11.6	12.7	12.8	10.8	9.4	12.5
Maturity	25-44	25.4	26.6	28.9	28.5	27.3	28.2	28.8	26.7	25.1
Middle age	45-64	12.9	14.0	14.1	15.0	16.7	18.6	17.7	17.4	18.6
Old age	65 and over	4.6	5.0	4.6	4.8	5.6	6.7	7.8	7.6	8.1
Early old age	65-74	3.1	3.4	3.1	3.3	3.9	4.6	5.3	4.9	5.0
Advanced old age	75 and over	1.5	1.6	1.5	1.5	1.7	2.1	2.4	2.8	3.1

1) Life cycle stages taken from Bogue, D.J., **Principles of Demography,** *(John Wiley and Sons, Inc., 1969), p. 163; excludes Newfoundland in censuses prior to 1951.*

Table 1.15
PERCENTAGE DISTRIBUTION OF PERSONS 20-54 YEARS OF AGE BY MARITAL STATUS AND SEX

	MARITAL STATUS				
	Total	Single	Married	Widowed	Divorced
TOTAL POPULATION:					
1911	100.0	35.7	61.6	2.6	0.1
1921	100.0	29.6	67.2	3.1	0.1
1931	100.0	31.6	65.5	2.8	0.1
1941	100.0	31.8	65.6	2.3	0.2
1951	100.0	24.1	73.7	1.9	0.4
1961	100.0	19.5	78.4	1.7	0.5
1971	100.0	20.0	77.1	1.5	1.4
Males:					
1911	100.0	42.1	56.1	1.7	0.1
1921	100.0	34.4	63.4	2.1	0.1
1931	100.0	36.4	61.6	1.8	0.1
1941	100.0	36.4	62.0	1.4	0.2
1951	100.0	28.1	70.7	0.8	0.3
1961	100.0	23.6	75.3	0.7	0.4
1971	100.0	24.0	74.3	0.6	1.1
Females:					
1911	100.0	27.9	68.3	3.7	0.1
1921	100.0	24.3	71.3	4.2	0.2
1931	100.0	26.2	69.8	3.8	0.1
1941	100.0	27.0	69.4	3.4	0.2
1951	100.0	20.0	76.6	2.9	0.5
1961	100.0	15.2	81.5	2.7	0.6
1971	100.0	16.0	79.9	2.4	1.6

Chart 1.16
DISTRIBUTION OF PERSONS 20-54 YEARS OF AGE BY MARITAL STATUS



Family Formation and Composition

2

Basic to the organization of any society, the family can be viewed as performing several major social functions. Among these are the replacement of population and the transmission of the cultural heritage and changes in myths, values and customs from one generation to another. This institution is thus the primary vehicle of informal education in the formative years, and some studies suggest that it also crucially affects the success of the individual's formal education. In another area of social functions, the role of the family in the satisfaction of individuals' emotional needs is widely known. Therefore, any serious consideration of Canadian social concerns must involve an inquiry about what is happening to the family institution in this country.

Such an inquiry must be many-sided. It starts with the numbers of families and the historical pattern of their numerical growth, which is largely the result of the processes of family formation and dissolution within Canada. Most family formation is identifiable in terms of legal marriage arrangements and the statistics they generate, although informal or exotic marriage arrangements have always been with us. Some family dissolution is identifiable through legal separation, divorce actions and deaths, and the statistics they generate; but dissolution through informal separation is also important, though much less easily identified in available statistics. Immigration and emigration also influence the numbers of families. It follows from these observations that statistical reporting of the major processes of family formation and dissolution is fraught with many pitfalls, and currently available data cannot be considered adequate.

The subject of family composition, in terms of the different members and their respective roles, is also of vital importance. For different composition criteria, different type-of-family classifications can be developed, and the distributions of families by type comprise an important feature of the portrait of any society. Long-term trends of change in type-of-family distributions are by themselves major aspects of social change in Canadian communities. Type-of-family classifications may focus on such considerations as the number of generations represented in a family, the presence of both parents, the marital status of the family head, the pattern of relations among the various members of the family, and the numbers and age distribution of individual members (especially children). Thus the subject of family composition is complex, and available statistics do not permit a full portrait.

The identification of a family unit in the Census of Canada is based upon relationships among the residents of a single dwelling. Respondents to the census questionnaire report their relationships to the identified household head, and on the basis of these reports, family units are identified.

Essentially, the family unit is a group of related persons. However, two different kinds of units are reflected in census data. The first is the **census family** – generally, a husband and wife (plus any never-married children) or a parent with one or more never-married children, provided that all live in the same dwelling. There may be more than one census family in a single household. The second type is the **economic family** – a group of two or more persons living in the same dwelling and related to each other by blood, marriage, or adoption. All family data shown in this chapter refer to the census family concept.

Because of the major ethnic variations within Canada, some of them linked to regional location, it is important to show the main patterns of at least regional variations in the formation and dissolution processes and in family composition. Here again the data we can bring to bear upon this effort are inadequate, at least in their coverage.

We can reflect some aspects of family-formation processes and their changes through marriage rates and data on average age at first marriage by sex. Historical patterns and provincial and other regional breakdowns also point up important variations over time and by geographical areas. Average age at first marriage, for example, can often indicate the population's potential for growth. One small aspect of dissolution processes is reflected in the series on divorce rates. Two important aspects of family composition shown below are number of persons per family and the number of children per family. In Canada, average family size has undergone changes both at the national and the provincial levels. Also given below are data on the percentage distribution of families by the number of children and by age of parents. With regard to the population replacement function of families, age profiles of fertility rates reflect the ages at which this function is most highly concentrated, and long-run changes in the mean and the modal ages of child-bearing are major indicators of cultural change in any society.

CONCEPTS AND DEFINITIONS

CRUDE MARRIAGE RATE

The crude marriage rate is defined as the ratio of registered marriages in a given year to every 1,000 of the mid-year population. The crude marriage rate only measures the relative weights of marriage in the total population. Its denominator includes the population not eligible to marry, such as those already married, separated, or too young to marry.

MARRIAGE RATE INDEX

The marriage rate index is equal to:

$$1000 \times \left[\frac{\text{number of registered marriages in the year}}{\begin{array}{l}0.6\ (\text{number unmarried women 15 and over}) + \\ \quad 0.4\ (\text{number of unmarried men 15 and over})\end{array}} \right]$$

The 0.6 (women) + 0.4 (men) is a weighted average of the mid-year numbers of unmarried men and women. The marriage rate index more closely relates the marriages to the population which is likely to get married than does the crude marriage rate.

CRUDE DIVORCE RATE

The crude divorce rate is the number of divorces per 100,000 of mid-year population. The crude divorce rate measures only the relative weight of divorces in the total population. The denominator of the ratio includes persons who are ineligible for divorce – e.g., those who are single, too young to be married, widowed and divorced prior to year of observation and still not remarried.

DIVORCE RATE INDEX

The divorce rate index is equal to:

$$100{,}000\left[\frac{\text{number of divorces}}{\text{half the number of married persons}}\right]$$

The index is a better approximation to a valid divorce rate than the crude divorce rate.

NOTE: Due to the significant easing of divorce laws in 1969, divorce rates prior to 1969 are not comparable and therefore are not shown.

MEAN AGE AT CHILDBEARING

The mean age at childbearing is a weighted average of the ages at which women bear children. In this case, the weight for a given age is the ratio of the age-specific fertility rate at that age to the sum of all age-specific fertility rates.

The points in Chart 2.7 are based upon the age-specific fertility rates of one calendar year. They characterize the fertility pattern of that year and not that of any real cohort of women. The reader should focus on the historical "trend" of the numbers, and avoid interpreting any single point in the chart as if it refers to a generation of Canadian women.

Table 2.1.
NUMBER AND AVERAGE ANNUAL GROWTH RATE[1] OF CENSUS FAMILIES[2]

	THOUSANDS OF FAMILIES				AVERAGE ANNUAL GROWTH RATE		
	1941	1951	1961	1971	1941-51[3]	1951-61	1961-71
CANADA	2,525.3	3,287.4	4,147.4	5,070.7	2.7	2.6	2.2
Newfoundland	–	74.9	89.3	108.1	–	1.9	2.1
Prince Edward Island	19.6	21.4	22.0	24.3	0.9	0.3	1.0
Nova Scotia	123.6	145.1	161.9	180.7	1.8	1.2	1.2
New Brunswick	93.5	111.6	124.7	140.4	1.9	1.2	1.3
Quebec	647.9	856.0	1,103.8	1,357.2	3.2	2.9	2.3
Ontario	909.2	1,162.8	1,511.5	1,881.8	2.8	3.0	2.4
Manitoba	166.2	191.3	215.8	236.0	1.5	1.3	0.9
Saskatchewan	190.1	196.2	211.8	215.8	3.2	0.8	0.2
Alberta	175.7	223.3	305.7	382.1	2.7	3.7	2.5
British Columbia	199.4	299.8	394.0	533.6	5.0	3.1	3.5
Yukon and Northwest Territories	. .	4.9	7.1	10.6	. .	4.3	5.0

1) The average annual growth rate for census families is 100 times the absolute change in the number of families divided by the product of (a) the number of years over which the change is measured, and (b) the number of families at the start of the period in question.
2) A census family consists of a husband and wife (with or without children who have never been married, regardless of age) or a parent with one or more children never married, living in the same dwelling. A family may consist also, of a man or woman living with a guardianship child or a ward under 21 years for whom no pay was received.
3) Not including Newfoundland.

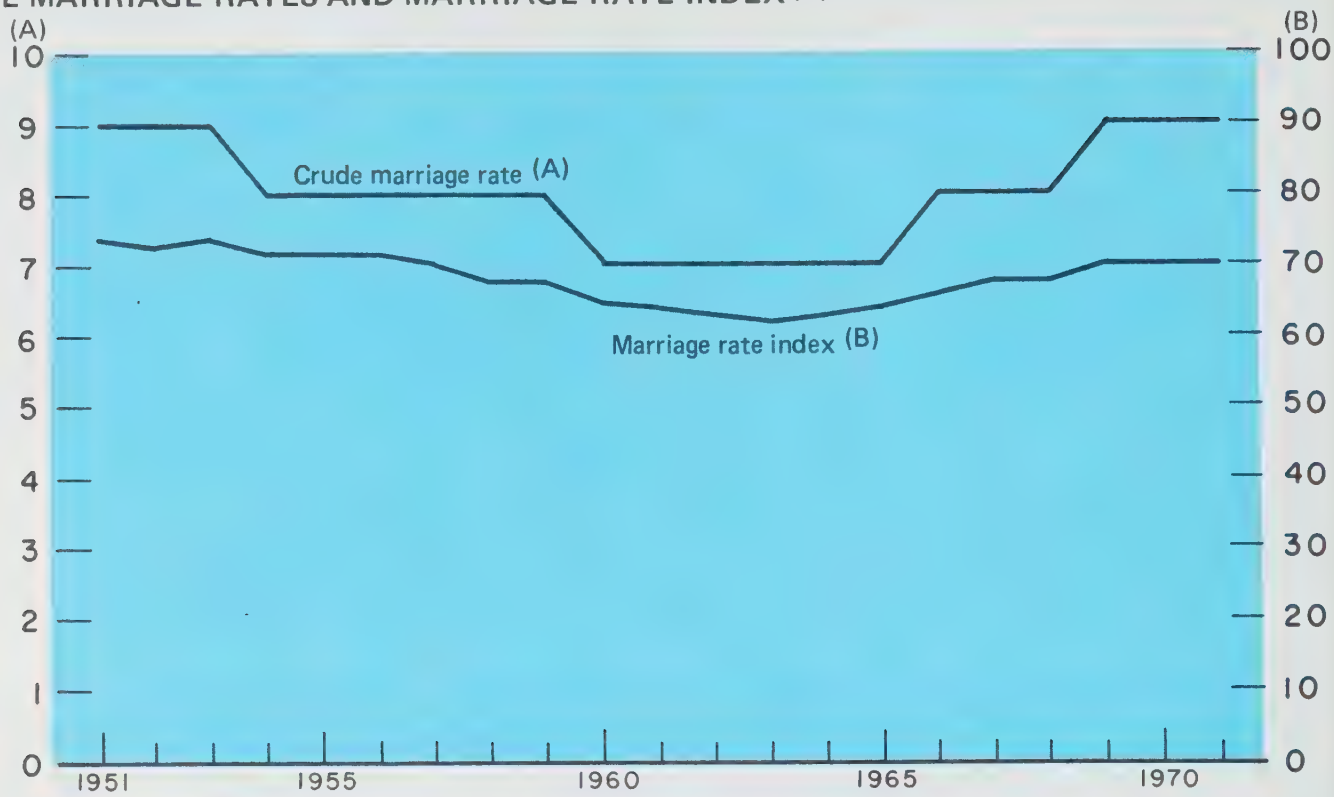
Table 2.2
CRUDE MARRIAGE AND DIVORCE RATES AND MARRIAGE AND DIVORCE RATE INDICES, 1971[1]

	Marriages per 1,000 population	Divorces per 100,000 population	Marriage rate index	Divorce rate index
CANADA	9	137	70	606
Newfoundland	9	29	79	144
Prince Edward Island	9	53	64	256
Nova Scotia	9	91	68	418
New Brunswick	10	76	76	359
Quebec	8	86	60	401
Ontario	9	158	75	669
Manitoba	9	139	73	606
Saskatchewan	8	88	69	389
Alberta	10	224	84	990
British Columbia	9	226	77	948
Yukon	9	256	89	1,164
Northwest Territories	7	14	71	80

1) See Concepts and Definitions for an explanation of the rates and indices.

Chart 2.3

CRUDE MARRIAGE RATES AND MARRIAGE RATE INDEX (1)



(1) *Excludes Yukon and Northwest Territories prior to 1961.*

Chart 2.4

DIVORCE RATE INDEX

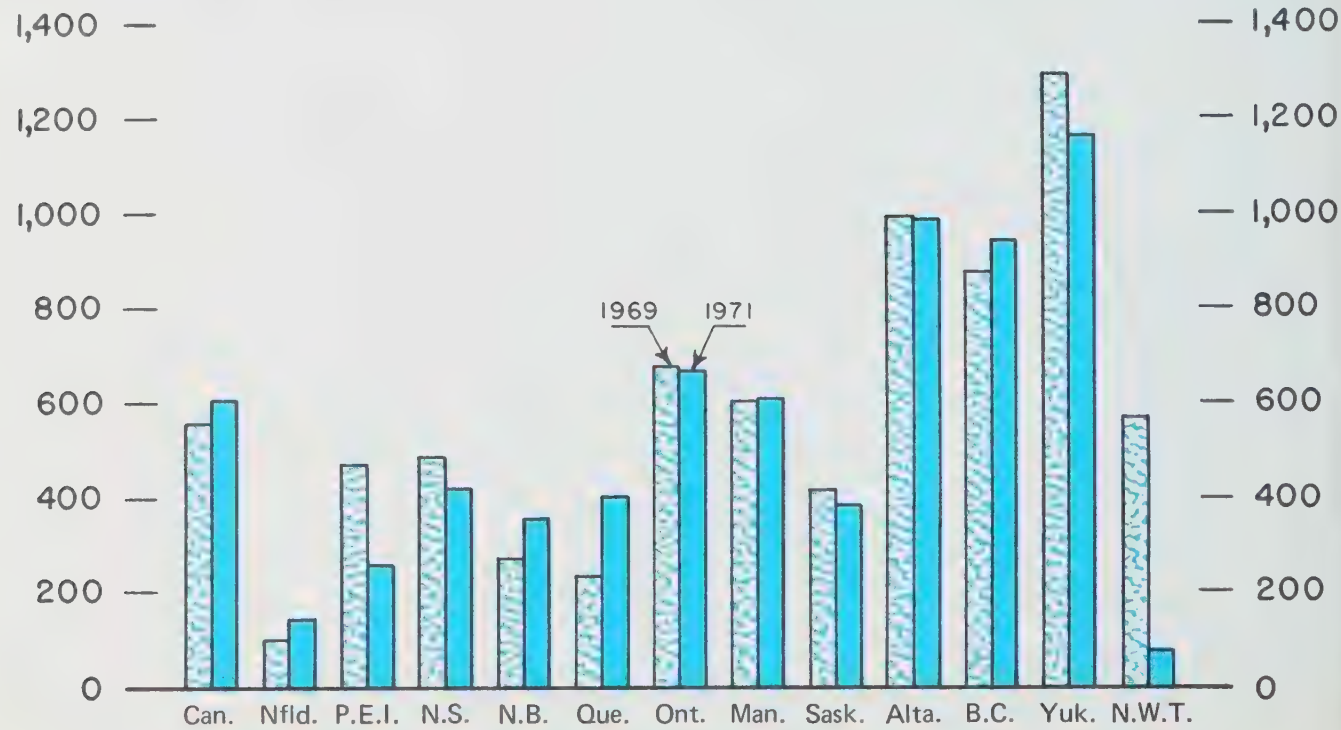


Table 2.5
DIVORCE RATES, BY AGE AT DIVORCE, 1971

	WIVES			HUSBANDS		
	Married female population	Divorces	Rate per 1,000 married women	Married male population	Divorces	Rate per 1,000 married men
15-19 years	75,715	173	2.28	15,950	11	0.69
20-24 "	527,870	3,941	7.46	301,400	1,713	5.68
25-29 "	646,655	6,214	9.61	587,165	5,381	9.16
30-34 "	567,730	4,868	8.57	562,645	5,199	9.24
35-39 "	550,725	3,976	7.22	566,770	4,459	7.87
40-44 "	548,860	3,595	6.55	566,005	3,968	7.01
45-49 "	538,220	2,787	5.18	540,720	3,222	5.96
50-54 "	435,440	1,779	4.08	456,600	2,214	4.85
55-59 "	360,635	1,028	2.85	408,315	1,462	3.58
60-64 "	259,945	505	1.94	321,620	923	2.87
65-69 "	170,810	224	1.31	230,045	445	1.93
70 years and over	198,295	515	2.60	323,525	608	1.88

Chart 2.6
DIVORCE RATES, BY AGE AT DIVORCE, 1971
(Rate per 1,000 married persons)

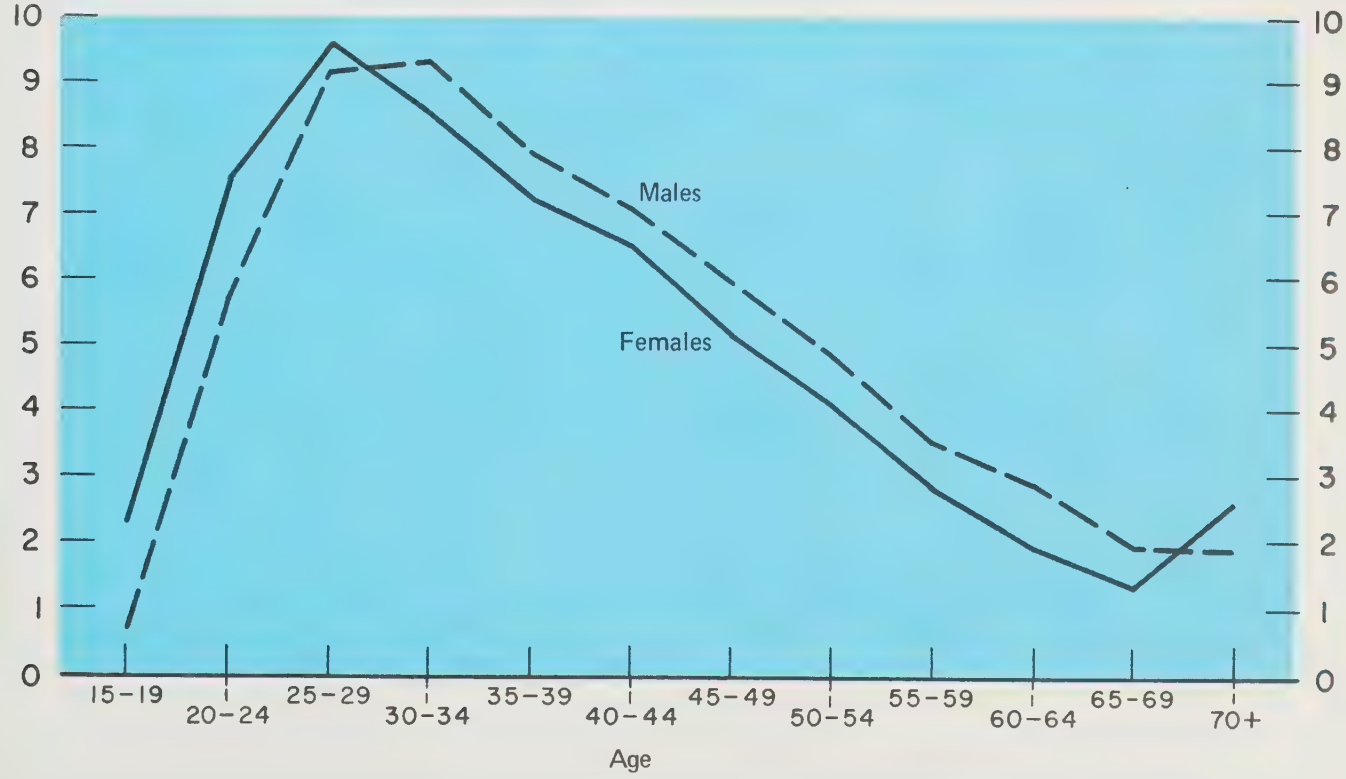
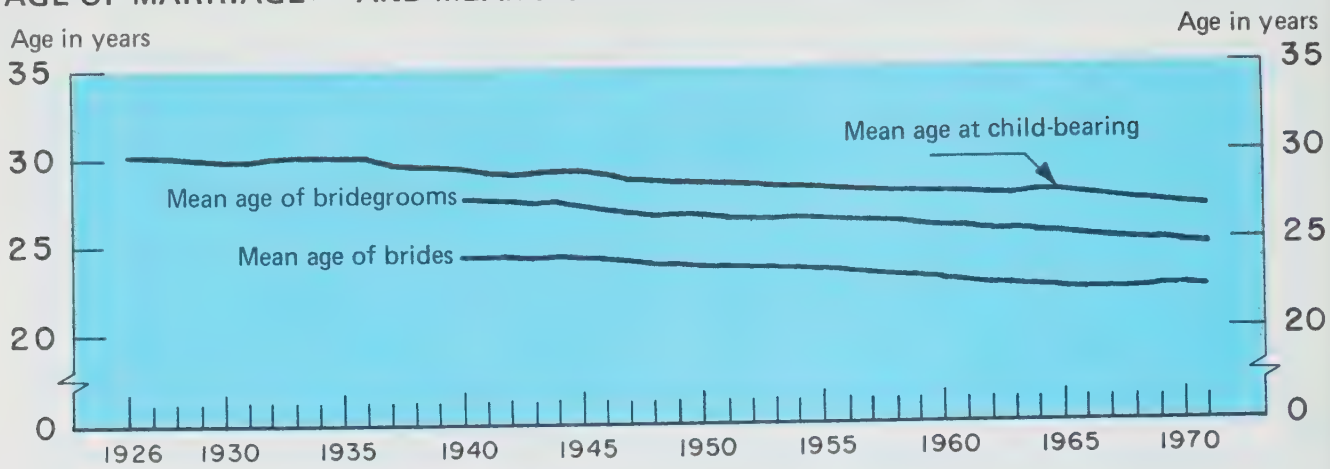


Chart 2.7
MEAN AGE OF MARRIAGE(1) AND MEAN AGE AT CHILD-BEARING(2)



(1) Of never previously married brides and grooms; data for 1926-1939 are not comparable to the later data.
(2) See Concepts and Definitions for explanation.

Table 2.8
INDEX OF MARRIAGE DISSOLUTION DUE TO DEATH OF HUSBAND[1]

	1941	1951	1961	1971
	rate per 1,000 married males			
TOTALS	12	11	11	11
15-19 years	3	1	1	1
20-24 "	2	1	1	1
25-29 "	2	1	1	1
30-34 "	2	2	1	1
35-39 "	3	2	2	2
40-44 "	4	3	3	3
45-49 "	6	6	5	5
50-54 "	10	9	9	8
55-59 "	15	15	14	13
60-64 "	22	22	22	21
65-69 "	33	32	33	32
70-74 "	53	50	49	48
75-79 "	86	80	74	72
80-84 "	132	124	112	107
85-89 "	187	187	166	156
90 years and over	297	292	252	211

1) The index of marriage dissolution due to death of husband is one thousand times the deaths of married males aged "A" in a given year, divided by the number of married males. The reader should note that this index is merely a death rate among married men, and it is only assumed to reflect the rate of dissolution of husband-wife families due to death of the husband. The index assumes the married men who died were almost all members of husband-wife families shortly before death and that its denominator suitably approximates the mid-year population of husband-wife families.

Table 2.9
AVERAGE SIZE OF CENSUS FAMILIES

	AVERAGE NUMBER OF PERSONS PER FAMILY			
	1941	1951	1961	1971
CANADA	3.9	3.7	3.9	3.7
Newfoundland	—	4.4	4.7	4.4
Prince Edward Island	4.2	4.0	4.2	4.0
Nova Scotia	4.0	3.9	4.0	3.8
New Brunswick	4.3	4.1	4.3	4.0
Quebec	4.5	4.2	4.2	3.9
Ontario	3.6	3.4	3.6	3.6
Manitoba	3.8	3.6	3.7	3.6
Saskatchewan	4.1	3.7	3.8	3.7
Alberta	3.9	3.7	3.8	3.7
British Columbia	3.4	3.3	3.6	3.5
Yukon and Northwest Territories	..	3.9	4.3	4.3

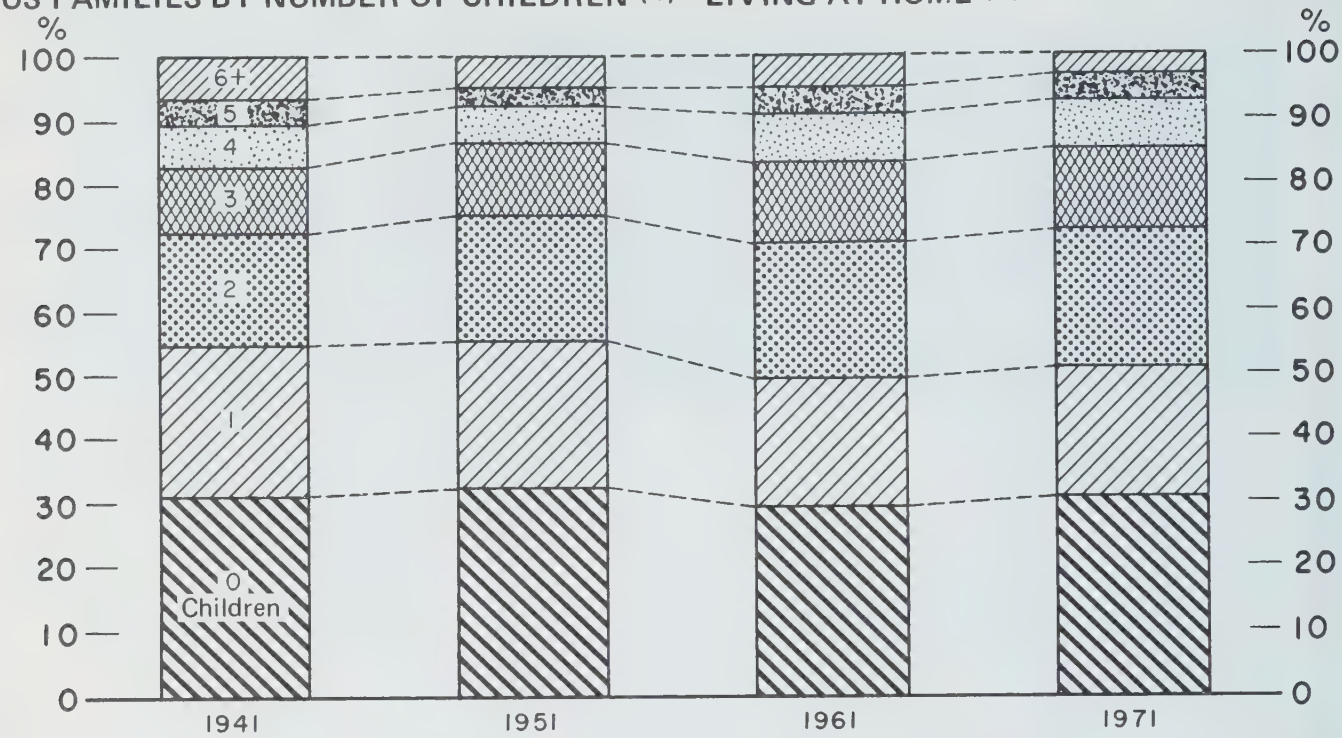
Table 2.10
AVERAGE NUMBER OF CHILDREN LIVING AT HOME,[1] BY AGE OF FAMILY HEAD[2]

	1941	1951	1961	1971
All family heads	1.9	1.7	1.9	1.7
Under 35 years	1.4	1.5	1.9	1.5
Under 25 years	..	..	1.0	0.7
25-34 years	..	..	2.0	1.7
35-44 years	2.6	2.5	2.8	2.7
45-64 "	2.2	1.7	1.8	1.6
45-54 years	..	2.2	2.3	2.1
55-64 "	..	1.1	1.0	1.0
65 years and over	0.5	0.3	0.2	0.2
Husband-wife families	1.9	1.7	1.9	1.7
Under 35 years	1.3	1.5	1.8	1.4
Under 25 years	..	..	0.9	0.6
25-34 years	..	..	2.0	1.6
35-44 years	2.6	2.5	2.9	2.7
45-64 "	2.2	1.8	1.8	1.6
45-54 years	..	2.3	2.3	2.2
55-64 "	..	1.1	1.0	0.9
65 years and over	0.5	0.3	0.2	0.2

1) Children 24 years of age and under.
2) Heads of family include single, married, widowed and divorced male and female heads, except in 1941 where single heads of family are not available by age.

Chart 2.11

CENSUS FAMILIES BY NUMBER OF CHILDREN (1) LIVING AT HOME (2)



(1) *Children 24 years of age and under.*
(2) *Excludes Newfoundland, the Yukon and the Northwest Territories in 1941.*

Table 2.12
CENSUS FAMILIES BY MARITAL STATUS AND SEX OF HEAD[1]

	1941[2]	1951	1961	1971
	thousands of families			
Total families	2,509.7	3,287.4	4,147.4	5,070.7
Both parents at home	2,202.7	2,961.7	3,800.0	4,591.9
One parent at home	307.0	325.7	347.4	478.8
	percentage distribution			
Total families	100.0	100.0	100.0	100.0
Both parents at home	87.8	90.1	91.6	90.6
One parent at home	12.2	9.9	8.4	9.4
Female parent only	9.0	7.6	6.6	7.4
Married, spouse absent[3]	1.3	2.2	2.0	2.4
Widowed	6.5	5.0	4.1	3.6
Divorced[4]	1.1	0.2	0.3	0.9
Single	0.2	0.1	0.2	0.5
Male parent only	3.2	2.3	1.8	2.0
Married, spouse absent[3]	0.4	0.6	0.7	0.8
Widowed	2.4	1.6	1.0	0.8
Divorced[4]	0.3	0.1	0.1	0.2
Single	0.1	- -	0.1	0.2

1) See Table 2.1 for definition of census family.
2) Excludes Newfoundland, Yukon and the Northwest Territories in 1941.
3) Spouse absent means that the lone parent is married but the spouse resides elsewhere. This includes permanently separated couples, except in 1941.
4) Includes permanently separated in 1941.

Health

3

All aspirations of a better quality of life are based on the assumption that people have sufficient health to enjoy it. In evaluating the overall health of the population, one must distinguish measures of **ill health** from those of **health.** Social concerns relate not so much to the number of people who suffer from specific illnesses, but rather to the general level of health, particularly in terms of the life cycle, social background, and geographical location. Nevertheless, traditional statistical measures – e.g. life expectancy, death rates by cause (indicating risk), and hospital admissions – form an extensive body of data from which one could infer the general level of health of the population. The following analysis and supporting statistics draw attention to the use and limitations of current data for evaluating health conditions and suggest desirable new directions for the development of social indicators in health.

The probability of achieving good health and attaining long life have always been influenced by social and natural environments. Indeed, it is the awareness of the impact of external forces on the individual's state of health that has led to the establishment and legal enforcement of public health measures. Traditionally, these have been limited to the field of sanitation, food inspection, and protection (through inoculation) against epidemic diseases. The development of "welfare state" ideology has, however, extended collective responsibility to the curative aspects of health. In Canada, the provincial health and hospitalization schemes can be viewed as the recognition of the principle that health services should be accessible by all, rather than only by those able to pay. Recently, we have seen an increasing interest in the question of preventive health care, with concerns about both detecting latent ill health and creating a higher level of public awareness of how to lead a healthier life.

The next step in this progression of health concerns will undoubtedly be the promotion of positive health. Here the question is not how sick are Canadians, but how fit are they? But there is still a great deal of controversy over whether it is possible to **measure** positive health statistically, especially if one includes the concept of positive mental health. Although it is feasible to measure certain aspects of physical health (e.g. eyesight, hearing, teeth, and endurance), it is quite another matter to relate these physiological characteristics to the more abstract notion of general physical health.[1]

The close relationship between health levels and social conditions directs attention to identifying the health status of people in the context of their way of life, position in the community, work condition, dietary habits and physical environment. The medical profession is increasingly aware that to approach sickness purely in terms of organic malfunction is insufficient – that the identification of conditions such as social stress and life crises ought to play an important role in modern diagnostic methods.[2] Statistical inquiry could throw light on these issues to the extent that health data are linked to the social, economic and geographical characteristics of the population.

Although modern technology has contributed to the improvement of the health and longevity of the population, there are emerging a number of questions on disturbing side-effects:

1. Has the higher probability of survival of infants increased the incidence of genetic defects in the population?
2. Is there an increase in social stress as a result of the rapidly changing social and technological environment? If so, what is the impact of this on mental and physical health?
3. What are the long-term effects of the increasing number of new and potent drugs being used to treat physical and mental illnesses?
4. Has the general nutritional level of food intake of the population deteriorated? [3] What are the long-term effects of residues of chemical fertilizers, pesticides and food additives? Has the quality of meat been affected by accelerated "factory line" production?
5. What is the impact of environmental pollution on health? (There is some evidence that respiratory diseases, allergies and fatigue can be traced to polluted air and exposure to noise, but apart from the causes célèbres – e.g. mercury poisoning in Japan, the great London fog of the winter of 1952 – conclusive evidence of the long-term effects on health of our increasingly polluted environment has yet to be assembled.)

In this chapter, we have selected from currently available data a set of statistics that hopefully will enable the reader to make broad inferences of some of the underlying health trends of the population. Health statistics are hard to interpret due to the complex nature

[1]For a discussion on the subject see N. Kohn, *The Health of Canadian People* Chap. 1, Royal Commission on Health Services (Ottawa: Queen's Printer, 1967).

[2]A. Katz, "The Social Causes of Disease", *The Social Organization of Health,* edited by H.P. Dreitzel (New York: MacMillan Company, 1971).

[3]There seems to be some evidence that there is a much higher level of malnutrition and poor dietary habits among Canadians than previously assumed. A.J. Campbell, "The National Nutrition Survey of Canada", *Canadian Nutrition Notes,* Health and Welfare Canada (Ottawa: March 1970).

of the phenomena to be measured. In addition, one must keep in mind that data are drawn from a limited universe, i.e. the bulk of the information is derived from institutional and administrative records, and the coverage is thus restricted to people who pass through the institutions (hospital admissions) or are subject to specific events (reportable diseases or deaths).

We have divided the statistics into four areas: physical health, mental health, accessibility of medical services, and some ad hoc data on fitness.

PHYSICAL HEALTH

Average life expectancy has traditionally been interpreted as an indicator of general health conditions, and any gains have thus been viewed as evidence of improved health of the population.[4] Lately, however, additional gains in life expectancy have been small. Most of the increases in the past 35 years can be attributed to the drop in infant mortality and the virtual elimination of infectious diseases as a cause of death, rather than to people living to an older age. Recent discussion of longevity as a health indicator has focused on the measurement of expectation of life in terms of years of **healthy** life, in which periods of illness or serious chronic disabilities are deducted from the total.[5]

Mortality statistics are the most consistent, universal set of records available for inferring the long-run trends in health. The spectacular decline in death rates from infectious diseases, and in infant mortality, has resulted in more people living to old age. This has contributed to the change in the age structure of the population, and has caused the **relative** rise in the death rates of illnesses associated with old age. Heart diseases and cancer now account for almost two-thirds of all deaths, of which almost 75 per cent take place among the 65-years-and-over age group. Today the use of mortality rates as a measure of health conditions in developed western nations is of decreasing interest. It has largely become an indicator of the cause of death at old age.

A fruitful approach to the use of these statistics is to focus attention on death prior to old age. In evaluating the relative seriousness of the cause of deaths, one should take into account not only their rates, but also the average age of the victims. In Table 3.7 and Chart 3.8 there is an attempt to indicate "premature death" by ranking the causes of death based on the difference between the age of 70 and the actual age of death. To draw the line of "old age" at 70 is somewhat arbitrary, although 70 is in fact the approximate expectation of life at birth (and the biblical decree on man's allotted time on earth happens also to be three score and ten!) In a strict actuarial sense it would be invalid to measure the loss of potential life without taking into account the increased risk of dying from other causes. In other words, inherent in any survival calculation is the assumption that if one cause of death is eliminated, the likelihood of dying from the remaining causes would be greater.

The most direct statistical measure of illness in the population is derived from the diagnostic records of hospital morbidity and from the records of public health authorities on notifiable diseases. The former are statistics on cases rather than number of persons, i.e. the total number of cases is always greater than the number of patients since some of them may have entered hospital more than once in a year. Notifiable diseases are the number of cases reported by doctors from a selected list of contagious diseases. The interest in this information stems from the time when public health authorities were concerned about the potential outbreak of epidemics. In Canada today, however, this is of relatively minor importance. Moreover, there is some question on the quality of these data due to under-reporting.

Hospital morbidity records are of limited use in evaluating the overall condition of health of the population. In the first place, hospitalization takes place usually in the more severe cases of illness. Furthermore, the accessibility to hospitals, the attitudes of patients and doctors to hospitalization, and new methods that allow patients to be treated outside hospitals may influence morbidity rates. In addition, more sophisticated testing techniques have enabled doctors to identify morbid conditions more precisely, thus causing some difficulties in comparability over time.

A key indicator of health would be a measure of the prevalence of **ill health** in the population.[6] This would require a measure that captures the whole range of disabilities from minor ailments and mild chronic conditions to severe illness and disability. Indeed, it is in the low range of this spectrum that the greatest impact is felt, notably in terms of absenteeism in industry, health conditions of people in poverty, and the impact of environmental pollution. One of the more promising approaches would be to measure health in gradations of disability, e.g. an index based on the number of days people are unable to carry out their normal activity. Perhaps this could then be graded in terms of degrees of limitation of activity, e.g. "stay at home", "confined to bed", "hospitalization".

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[4]Methodology and the interpretation of Canadian life tables can be found in *Life Tables, Canada and Provinces, 1965-1967,* Statistics Canada, Catalogue 84-527.

[5]Moriyama, Iwao, "Problems in the Measurement of Health Studies", *Indicators of Social Change,* E.B. Sheldon and W.E. Moore (Eds.), (New York: Russell Sage Foundation, 1968).

[6]The last and only time an attempt was made to measure directly the prevalence of illness in Canada was by *The Canadian Sickness Survey,* 1950-51, Statistics Canada, Catalogue 82-518.

Another approach now being considered in the field of health statistics is the use of the extensive diagnostic records of doctors from the provincial health schemes. Unfortunately, both conceptual and technical questions must be resolved before useful data can be derived.

There is a serious lack of data about the chronically disabled in the population. The measurement problem here is that there is no clear-cut line between the able and the disabled. Surveys on chronic conditions by the U.S. Department of Health, Education and Welfare have measured the prevalence of chronic disability in terms of limitation of activity.[7] In Canada, the Department of Health and Welfare produced in 1965 an admittedly crude estimate that there were in this country more than four million chronically disabled (about one-fifth of the population), of whom half had mental and emotional disorders.

MENTAL HEALTH

Manifestations of mental illness are often associated with one's inability to cope with demands and stresses of life. Thus changes in the number of people with psychiatric conditions may be linked to social stress. Unfortunately, there are both statistical and conceptual issues that make the data on mental health particularly difficult to interpret. When using the data in this compendium, the following should be borne in mind:

1. Statistics on mental health are drawn from the public records of hospitals' in-patient facilities. These include the more serious cases but omit an increasingly large number of patients being treated by out-patient facilities and private practice, as well as some who are not treated at all.
2. Changing methods of treatment have resulted in greater emphasis on short-term treatment. This means greater turnover of patients and a consequential increase in first admissions and readmissions, and a relative decline in "patients on books".
3. The number of people treated is closely related to availability of facilities. An apparent increase in admissions may, at times, reflect the structural change of facilities, e.g. the introduction of alcoholic treatment centres in Quebec starting in 1964.
4. Statistics may reflect changing attitudes; certain conditions may be recognized as mental illness which previously may have been passed off as "bad habits". Alcoholism is a case in point. On the other hand, the greater societal tolerance of "abnormal" behaviour may result in a reduction of people classified as mentally ill.
5. When anti-social behaviour expresses itself in criminal activity, the more rigid criteria of insanity in the law books will find these people counted in penal rather than mental institutions.
6. The lack of medical consensus and scientific certainty on the nature and cause of mental illness (apart from cases that can be directly related to physical abnormalities, such as genetic defects, brain tumors and diseases of the central nervous system) are additional reasons why it is difficult to interpret the data.

   For instance, for taxonomic purposes, mental illnesses have been defined generally by subjective rather than objective criteria, thus "patients are described as psychotic when their mental functioning is sufficiently impaired to grossly interfere with their capacity to meet the ordinary demands of life",[8] while neurotic patients are characterized by anxiety though, unlike the psychotics, they are aware that their mental functioning is disturbed.

ADEQUACY AND ACCESSIBILITY OF HEALTH CARE

One of the prime areas of social concern is the population's access to medical facilities. The provincial health plans have largely mitigated the "ability to pay" aspect of medical care, but even so there are still some medical services that are not covered (e.g. dental care) and, in certain areas, there is a shortage of medical facilities.

An additional concern is the adequacy of health services. This should be evaluated in terms of both availability and quality. It may be, for instance, that the facilities are getting better but the quality of the service is deteriorating. One approach that might capture both availability and quality would be to weigh subjective evaluation (through attitudinal and perception surveys) against that of an objective count of facilities.

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[7] *Chronic Conditions Causing Activity Limitations 1963-65* Series 10, No. 51, Department of Health, Education and Welfare, (Washington: 1969).

[8] *Manual for the Classification of Psychiatric Diagnoses*, Statistics Canada, April 1969, p. 13.

In this area, apart from hospital costs and capacities, practically no statistics are available. In this section, we have, therefore, attempted to present a perspective on accessibility and adequacies by presenting some of the more interesting time series on hospitals, such as capacity, admissions, length of stay, and cost per patient. The institutional data have been supplemented to some extent with estimates of personal health expenditures, and the number of persons per doctor and per dentist.

FITNESS

The most relevant statistics on health are those that attempt to measure the individual's state of physical and mental well-being. It is for this reason that health authorities are concerned about the development of statistical measures on physical fitness, participation in active sports, dietary habits, degrees of disability, and the involvement of people in activities that are known to be harmful to health – such as over-indulgence in eating, smoking and drinking.

This section is made up essentially of a selection of ad hoc data from a variety of sources that illustrate some of these aspects of health. It is clearly an underdeveloped area of statistical work. The recent **Nutrition Canada Survey** carried out by Department of National Health and Welfare is the beginning of an inquiry into this new area.[9]

CONCEPTS AND DEFINITIONS

LIFE EXPECTANCY AND LIFE TABLES

Table 3.1 is derived from life tables and shows life expectancy at various ages, i.e. the expected years left at a given age.

Life tables are the calculation of the survival probabilities of a cohort of 100,000 people. These tables show how, on the basis of mortality rates at each age of the given years, these 100,000 people are reduced in number by death. Since these calculations are based on current mortality patterns, there is an assumption that the mortality rates in the given year remain constant during the life of the individual.

For the years 1931 to 1961, life expectancy was calculated using an average of the mortality rates of the three years centered around the census year. The 1971 values were calculated using only one year's death rates. In addition, the 1971 Canada values were found using a complete life table whereas the provincial values were calculated using an abridged life table.

STANDARDIZED (AGE-ADJUSTED) DEATH RATES

When crude death rates are compared over a period of time, a difficulty arises: while the death rate for each age group may remain constant, changes in the age composition of the population may bring changes in the overall rate of mortality. This factor may be offset by standardizing the rates – that is, by applying the death rates for each age group in each year to an arbitrary standard population, usually the actual population in one particular year (in this instance, the 1956 census population). It can thus be calculated what the overall death rate would have been in each year, had the age and sex composition of the population remained constant over the whole period.

INFANT MORTALITY

Deaths of children less than one year old.

NEONATAL MORTALITY

Deaths of infants less than 28 days old.

POST-NEONATAL MORTALITY

Deaths of infants between four weeks and one year of age.

ENDOGENOUS MORTALITY

Infant deaths due to congenital or inherited diseases.

EXOGENOUS MORTALITY

Infant deaths due to causes or diseases other than congenital or inherited diseases.

The exogenous death rate was found using the Bourgeois-Pichat method which gives a good approximation to the actual rate. The method is as follows:

Exogenous Death Rate = 1.228 x Post-Neonatal Death Rate

It then follows that:

Endogenous Death Rate = Total Infant Death Rate – Exogenous Death Rate

PERINATAL MORTALITY

Deaths of infants under one week of age plus stillbirths. A stillbirth is the death of a foetus of 28 or more weeks gestation.

POTENTIAL YEARS OF LIFE LOST DUE TO DEATH PRIOR TO AGE 70

The life years lost were calculated for each five-year age group with the exception of the first age

[9]The *Nutrition Canada Survey* was the first national nutrition survey conducted in Canada. The field operations commenced in September 1970 and were completed in December 1972. Over 19,000 individuals of all ages had medical, dental and anthropometric examinations and a dietary interview, and most provided blood and urine samples for analysis. The data used below are from the initial report which was released in November 1973. During 1974, 12 more volumes, one for each province and one each for Indians and Inuit, will be published, providing more detailed analysis.

group, which was disaggregated into 0-1 and 1-4 years of age. Therefore, for each cause of death the number of years lost was

$$= \sum_{Ad = .5}^{67.5} N(70\text{-}Ad)$$

where Ad = mean age of death for each age group
N = number in each age group dying of a particular disease.

The calculations were based on causes of death selected from the Intermediate A List of causes of death, an international classification developed by the U.N. The major causes were included in the table as well as those of interest with respect to today's lifestyle. Some diseases were logically grouped so that their sometimes small but significant impact would not be lost.

PHYSICIANS IN ACTIVE FEE PRACTICE

A civilian physician whose main employ is in the provision of personal medical care services, and whose professional income is mainly from services rendered.

Table 3.1
AVERAGE LIFE EXPECTANCY AT SELECTED AGES[1]

	CANADA		ATLANTIC REGION		QUEBEC		ONTARIO		PRAIRIE REGION		BRITISH COLUMBIA	
	M	F	M	F	M	F	M	F	M	F	M	F
At birth:												
1931	60.0	62.1	60.2	61.9	56.2	57.8	61.3	63.9	63.5	65.5	62.2	65.3
1941	63.0	66.3	61.7	64.6	60.2	63.1	64.6	68.4	65.4	68.2	63.7	69.0
1951	66.3	70.8	66.6	70.5	64.4	68.6	66.9	71.9	68.4	72.3	66.7	72.4
1961	68.4	74.2	68.6	73.9	67.3	72.8	68.3	74.4	69.8	75.7	68.9	75.4
1971[2]	69.4	76.5	69.1	76.5	68.5	75.5	69.8	77.1	70.6	77.6	69.7	77.0
At 1 year:												
1931	64.7	65.7	64.8	65.4	62.5	62.6	65.1	66.8	67.2	68.3	64.6	67.2
1941	66.1	68.7	65.7	67.8	64.5	66.3	66.7	70.1	68.0	70.2	65.4	70.2
1951	68.3	72.3	69.1	72.4	67.2	70.7	68.3	72.9	69.9	73.4	68.0	73.3
1961	69.5	75.0	70.1	75.1	68.7	73.8	69.1	75.0	71.0	76.4	69.8	76.0
1971[2]	69.8	76.6	69.7	76.8	68.9	75.8	70.0	77.1	71.1	77.8	70.2	77.3
At 20 years:												
1931	49.1	49.8	49.2	49.6	47.8	47.7	48.8	50.1	51.0	51.7	48.7	51.2
1941	49.6	51.8	49.4	51.3	48.4	49.9	49.6	52.4	51.3	53.1	49.0	53.1
1951	50.8	54.4	51.6	54.5	49.8	52.9	50.6	54.8	52.2	55.5	50.4	55.5
1961	51.5	56.7	52.2	56.8	50.8	55.5	51.0	56.5	52.9	58.1	51.9	57.6
1971[2]	51.8	58.3	51.7	58.4	50.9	57.4	51.9	58.7	53.2	59.5	52.2	59.0
At 65 years:												
1931	13.0	13.7	13.6	14.6	12.6	13.2	12.7	13.5	13.6	14.4	13.4	14.6
1941	12.8	14.1	13.1	14.5	12.4	13.4	12.6	14.0	13.4	14.6	13.0	14.8
1951	13.3	15.0	13.9	15.4	12.8	14.2	13.1	14.9	13.9	15.5	13.5	15.9
1961	13.5	16.1	14.2	16.4	13.2	15.3	13.1	15.9	14.2	17.0	14.0	16.9
1971[2]	13.8	17.5	14.0	17.6	13.3	16.8	13.6	17.9	14.8	18.5	14.5	18.5

1) For an explanation of Life Expectancy see Concepts and Definitions.
2) Provisional values.

Chart 3.2
AVERAGE LIFE EXPECTANCY AT SELECTED AGES

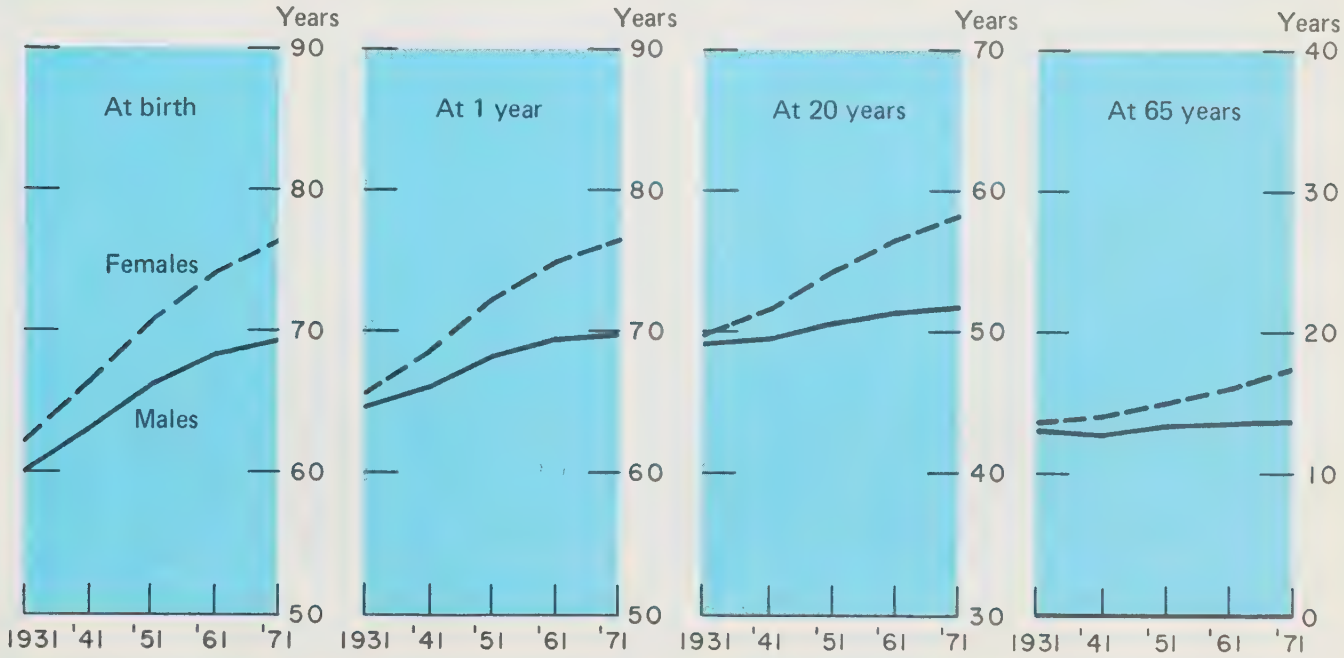


Chart 3.3
REGIONAL VARIATION IN LIFE EXPECTANCY

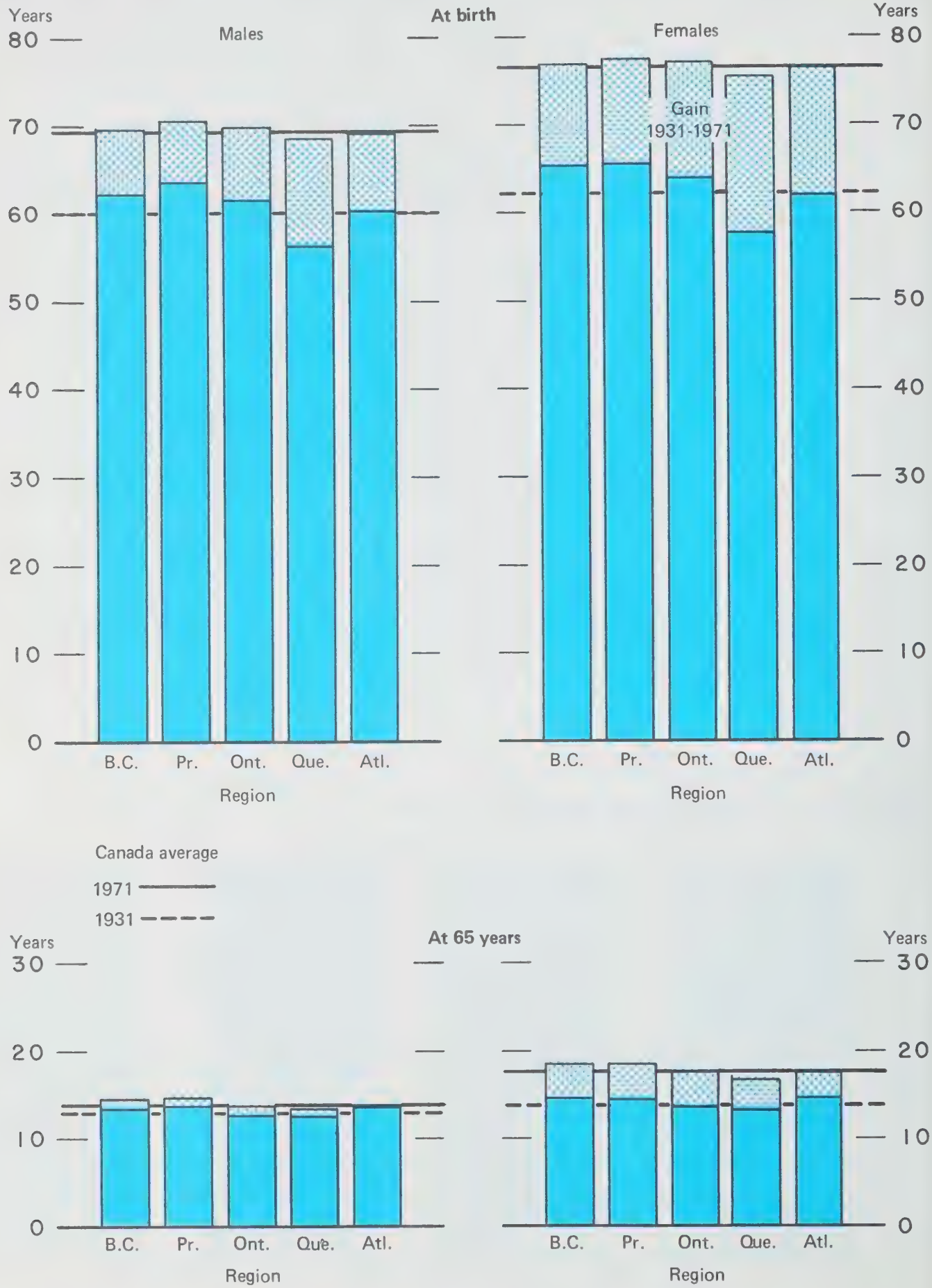
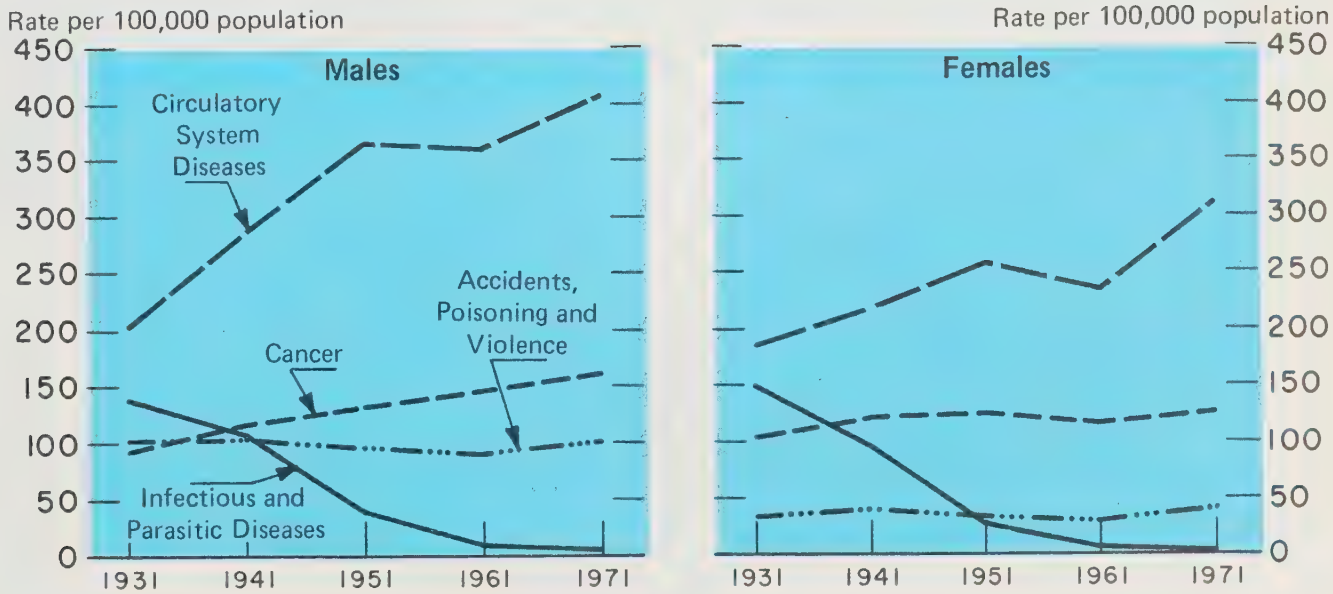


Table 3.4
AGE-SPECIFIC DEATH RATES

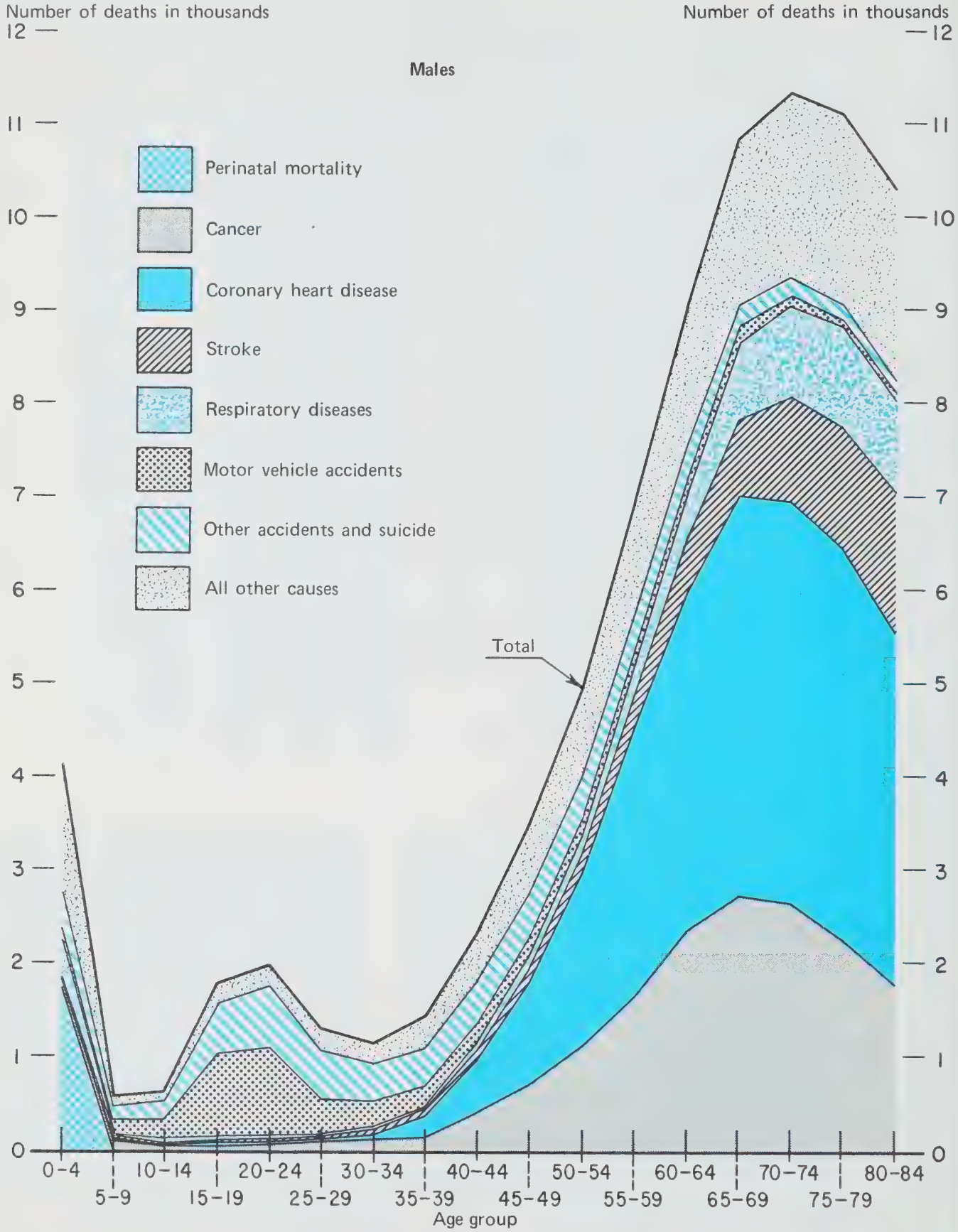
	MALE		FEMALE	
	1926	1971	1926	1971
	rate per 1,000 population			
Under 1 year	112.9	20.4	90.0	15.2
1- 4 years	9.0	0.9	8.2	0.8
5- 9 "	2.5	0.6	2.1	0.4
10-14 "	2.1	0.5	1.8	0.3
15-19 "	2.9	1.4	2.9	0.6
20-24 "	3.5	1.8	4.0	0.6
25-29 "	3.5	1.5	4.1	0.6
30-34 "	3.7	1.6	4.6	0.9
35-39 "	4.8	2.2	5.6	1.3
40-44 "	5.9	3.6	6.1	2.1
45-49 "	7.4	5.7	7.5	3.0
50-54 "	10.1	9.3	9.5	4.6
55-59 "	15.7	14.6	13.5	7.2
60-64 "	23.7	22.9	21.0	11.0
65-69 "	38.1	34.7	35.0	17.3
70-74 "	62.6	51.9	54.0	28.3
75-79 "	101.6	79.0	92.8	48.1
80-84 "	152.5	118.8	144.5	82.4
85 + years	252.6	198.5	274.3	163.3
ALL AGES	11.9	8.5	10.9	6.1

Chart 3.5
DEATH RATES BY CAUSE (1)



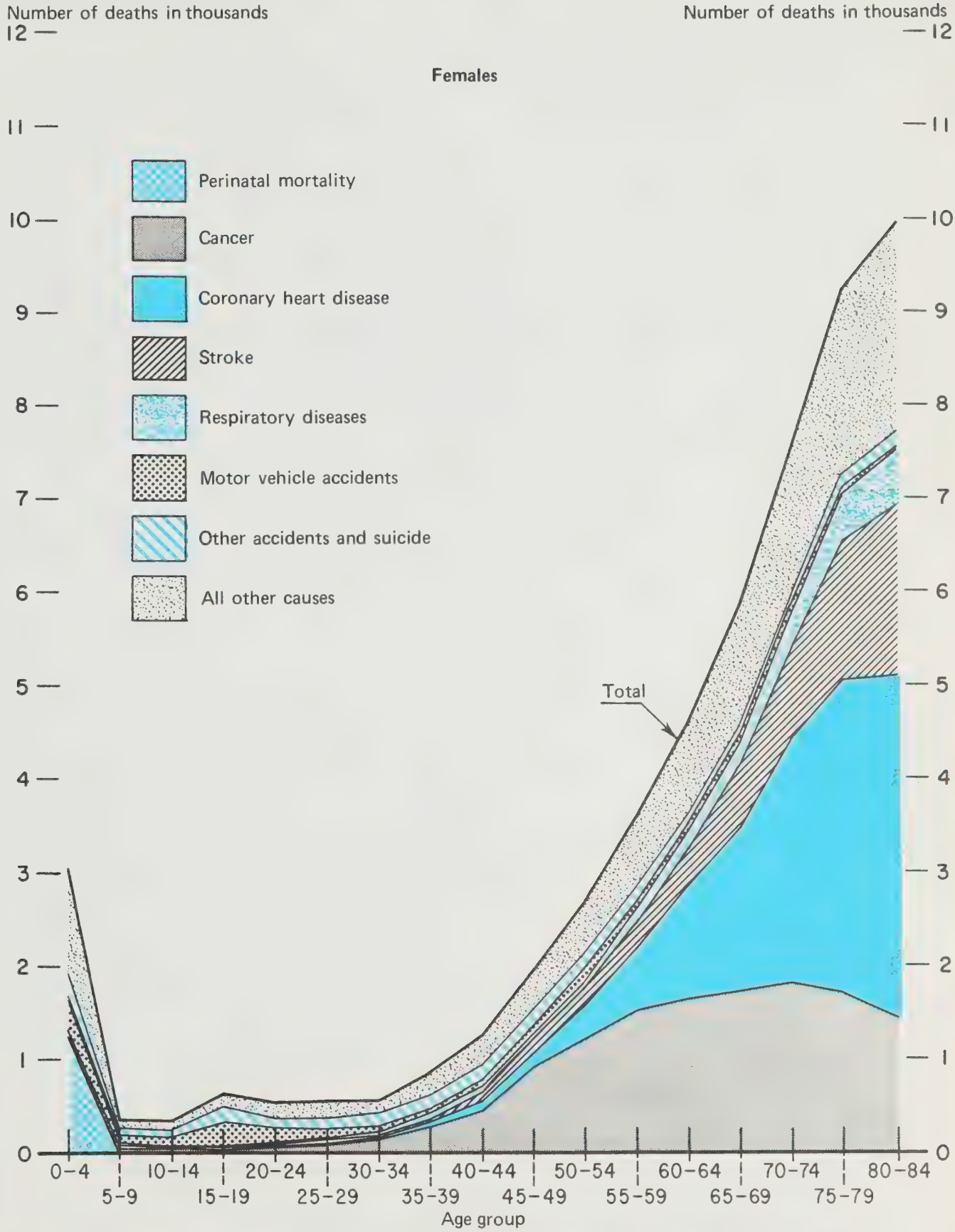
(1) These data are not age-standardized and therefore reflect the changes in the age structure of the population over the years.

Chart 3.6
MAJOR CAUSES OF DEATH, 1972(1)



(1) The death of persons 85 years of age and over were not plotted because these data are aggregated and therefore would give a distorted curve. The curve would eventually drop to zero.

Chart 3.6 (cont'd)
MAJOR CAUSES OF DEATH, 1972(1)



(1) *The death of persons 85 years of age and over were not plotted because these data are aggregated and therefore would give a distorted curve. The curve would eventually drop to zero.*

Table 3.7
POTENTIAL YEARS OF LIFE LOST THROUGH DEATH PRIOR TO AGE 70, 1971[1]

	TOTAL		MALE		FEMALE	
	Deaths	Years lost	Deaths	Years lost	Deaths	Years lost
Motor vehicle accidents	5,323	212,900	3,861	154,000	1,462	58,900
All other accidents	4,764	178,800	3,662	136,000	1,102	42,800
Ischaemic heart disease[2]	18,549	193,400	14,276	156,900	4,273	36,500
Respiratory system	3,936	102,500	2,626	59,900	1,310	42,600
Lung cancer	3,436	37,000	2,913	30,000	523	7,000
Suicide	2,396	69,400	1,742	51,600	654	17,800
Breast cancer	1,989	29,500	13	200	1,976	29,300
Cancer of uterus and ovary	1,308	20,100	–	–	1,308	20,100
Cerebrovascular disease[3]	3,912	45,900	2,189	24,100	1,723	21,800
Gastro-intestinal cancer	3,725	41,500	2,183	23,800	1,542	17,700
Perinatal mortality[4]	3,299	229,300	1,969	136,800	1,330	92,400
Congenital anomalies	1,928	121,500	1,037	65,600	891	56,000
Other causes	20,605	401,400	12,605	239,000	8,000	162,300
ALL CAUSES[5]	75,170	1,683,100	49,076	1,077,900	26,094	605,100

1) For an explanation of years lost see Concepts and Definitions.
2) Ischaemic heart disease, more commonly known as arteriosclerotic or coronary heart disease, is a disease of the heart muscle due to a lack of blood being supplied to the muscle.
3) Cerebrovascular disease is more commonly known as a stroke.
4) Perinatal mortality is deaths of infants under one week of age and stillbirths.
5) Totals may not add due to rounding.

Chart 3.8

POTENTIAL YEARS OF LIFE LOST THROUGH DEATH PRIOR TO AGE 70, 1971

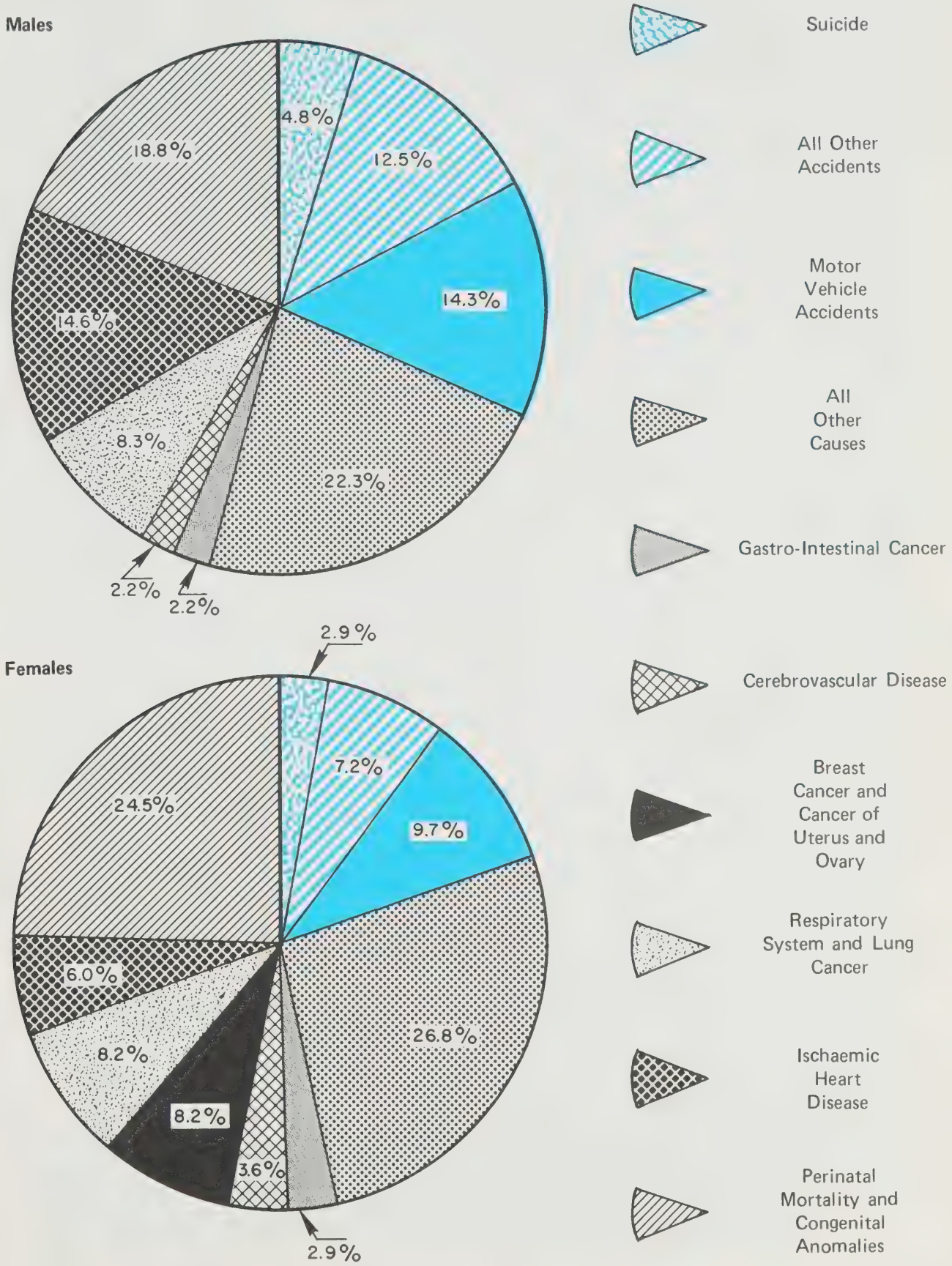


Table 3.9
INFANT MORTALITY[1]

	Neonatal mortality	Post neonatal mortality	Exogenous mortality	Endogenous mortality	Total infant mortality	Perinatal mortality
			rate per 1,000 live births			
1921	38	64	79	23	102	65
1931	35	51	63	23	86	59
1941	31	30	37	24	61	48
1951	23	16	20	19	39	36
1961	18	9	11	16	27	28
1971	12	5	6	11	17	20
1972	12	5	6	11	17	19

1) For a detailed explanation of infant mortality see Concepts and Definitions.

Chart 3.10
INFANT MORTALITY

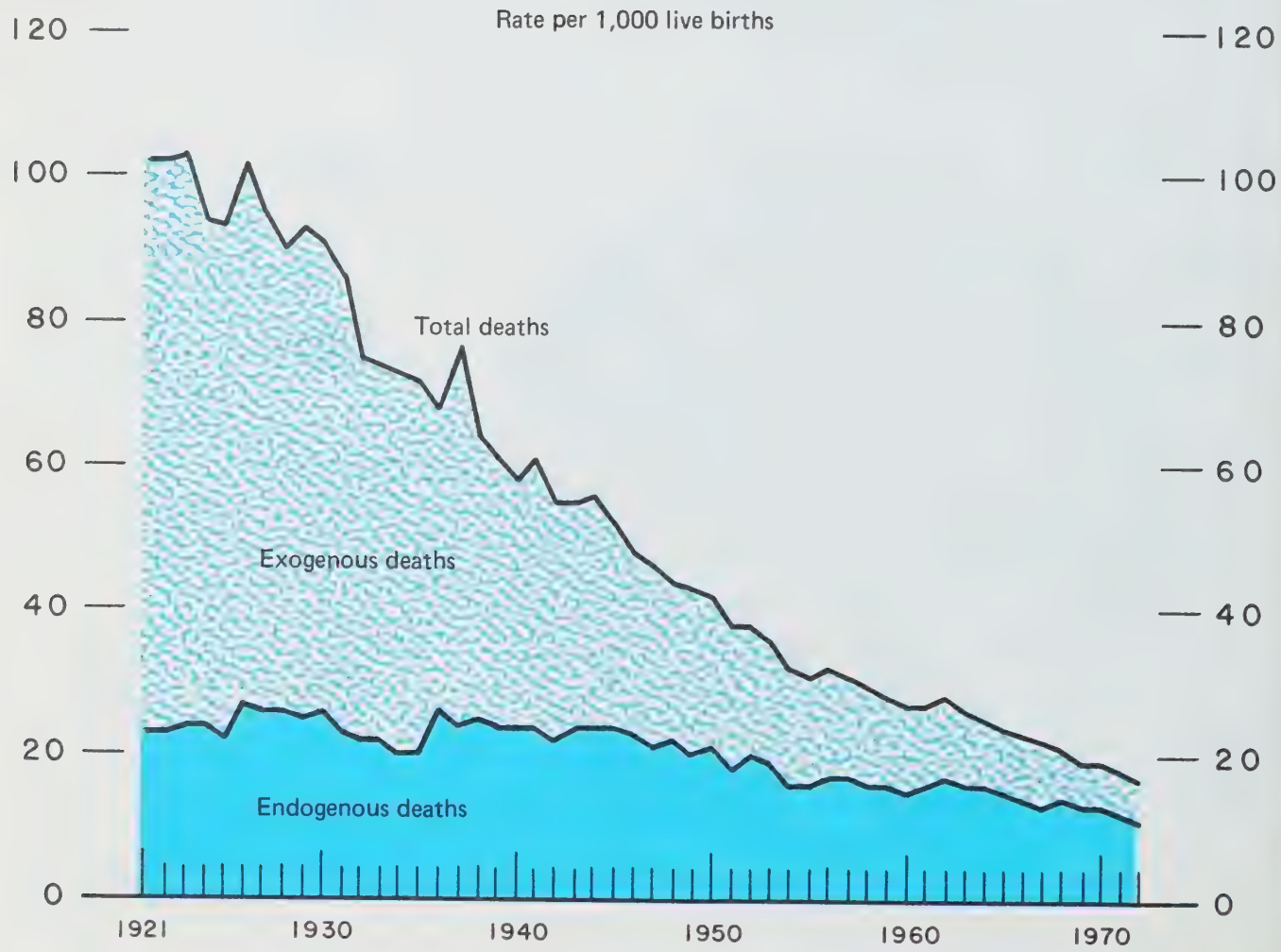
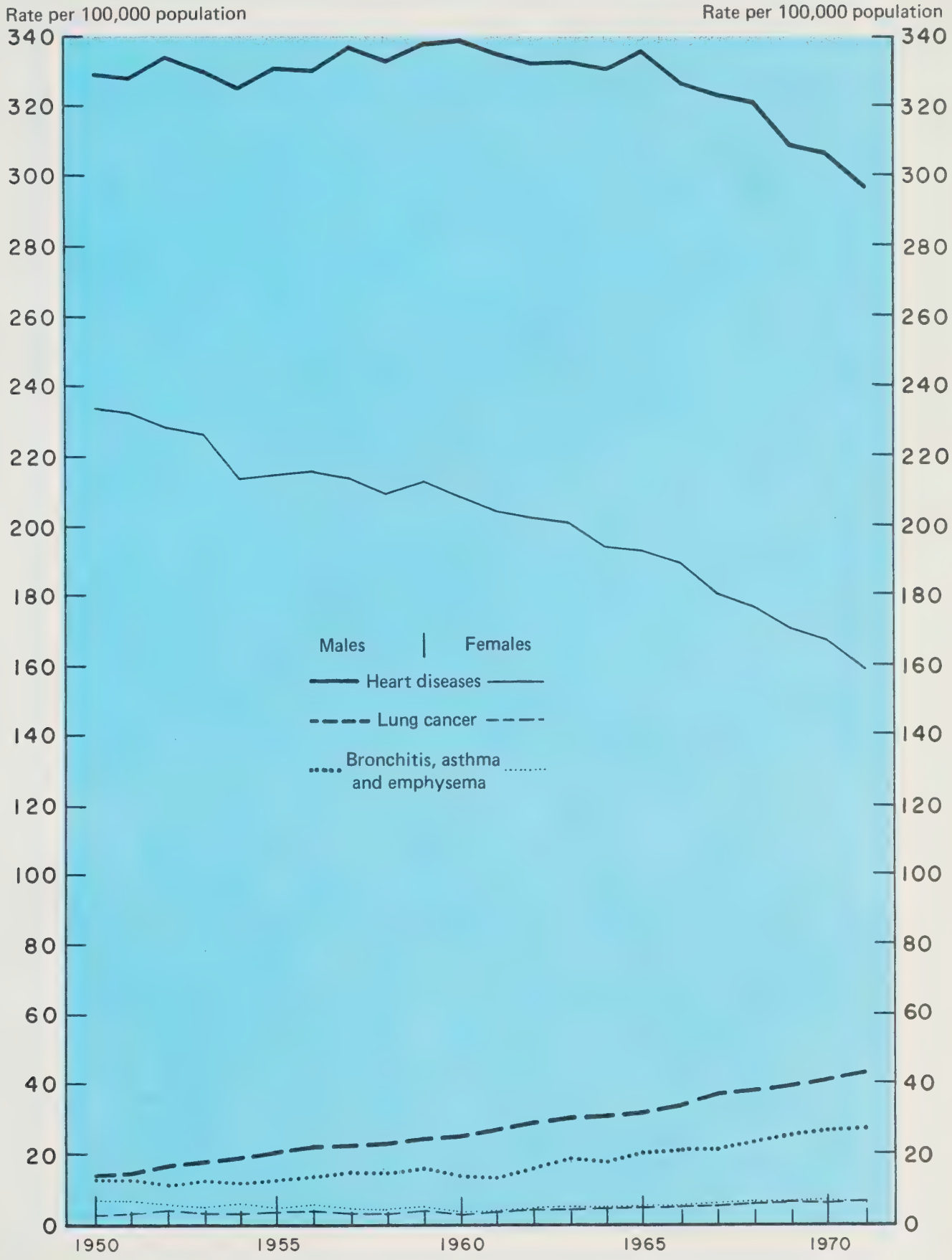


Chart 3.11
DEATH RATES FOR SMOKING-RELATED DISEASES(1)



(1) Age standardized rates.

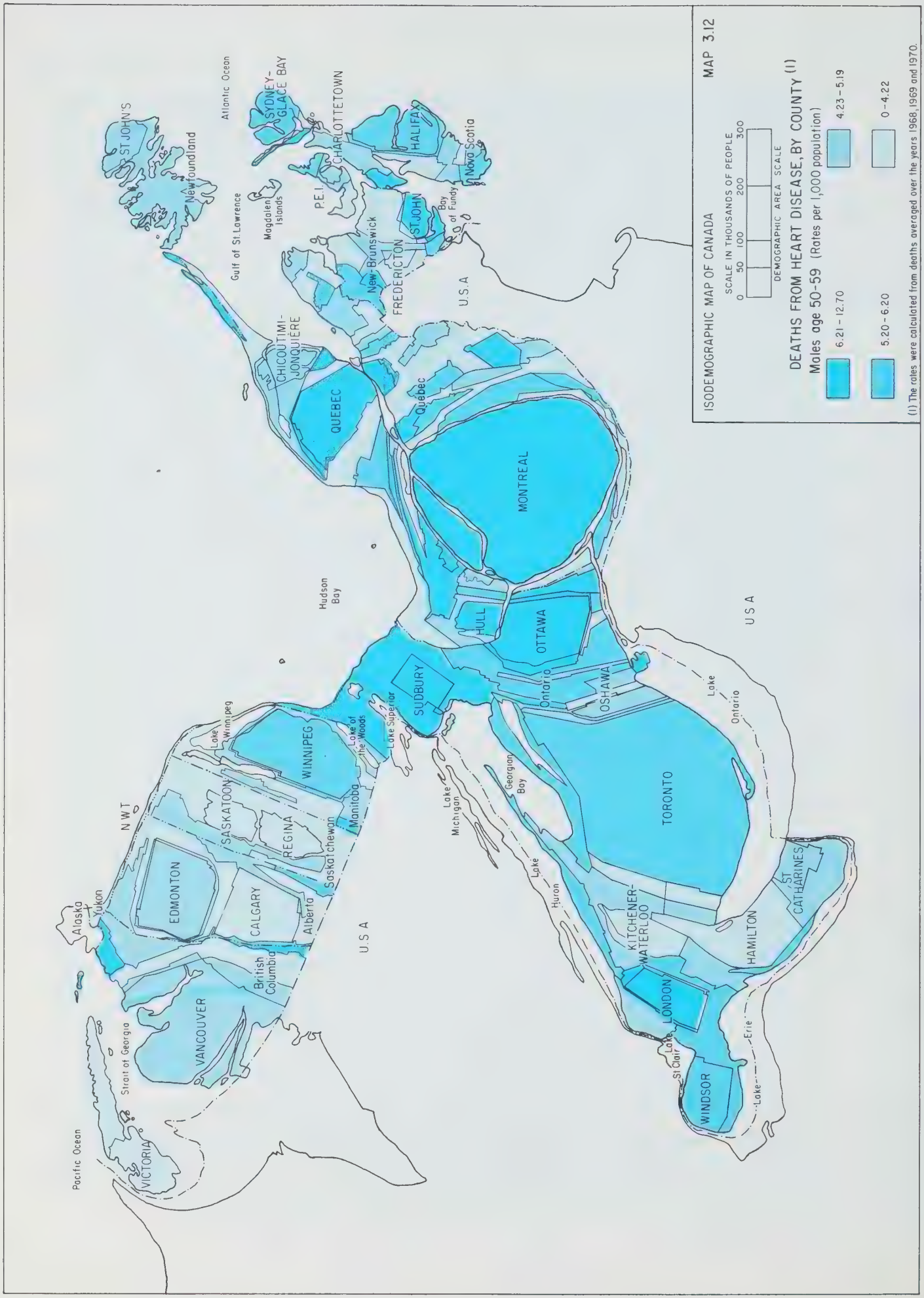

MAP 3.12
ISODEMOGRAPHIC MAP OF CANADA
SCALE IN THOUSANDS OF PEOPLE
0 50 100 200 300
DEMOGRAPHIC AREA SCALE
DEATHS FROM HEART DISEASE, BY COUNTY (1)
Males age 50-59 (Rates per 1,000 population)
6.21 - 12.70
5.20 - 6.20
4.23 - 5.19
0 - 4.22
(1) The rates were calculated from deaths averaged over the years 1968, 1969 and 1970.
Atlantic Ocean
Pacific Ocean
Gulf of St. Lawrence
Hudson Bay
Bay of Fundy
Strait of Georgia
Lake Superior
Lake Michigan
Lake Huron
Georgian Bay
Lake Ontario
Lake Erie
Lake St Clair
Lake of the Woods
Lake Winnipeg
Newfoundland
Nova Scotia
Magdalen Islands
P.E.I.
New Brunswick
Quebec
Manitoba
Saskatchewan
Alberta
British Columbia
Yukon
Alaska
N.W.T.
U.S.A
ST JOHN'S
SYDNEY-GLACE BAY
CHARLOTTETOWN
HALIFAX
ST.JOHN
FREDERICTON
CHICOUTIMI-JONQUIÈRE
QUEBEC
MONTREAL
HULL
OTTAWA
SUDBURY
OSHAWA
TORONTO
ST CATHARINES
HAMILTON
KITCHENER-WATERLOO
LONDON
WINDSOR
WINNIPEG
REGINA
SASKATOON
CALGARY
EDMONTON
VANCOUVER
VICTORIA

Chart 3.13

INCIDENCE OF NOTIFIABLE DISEASES

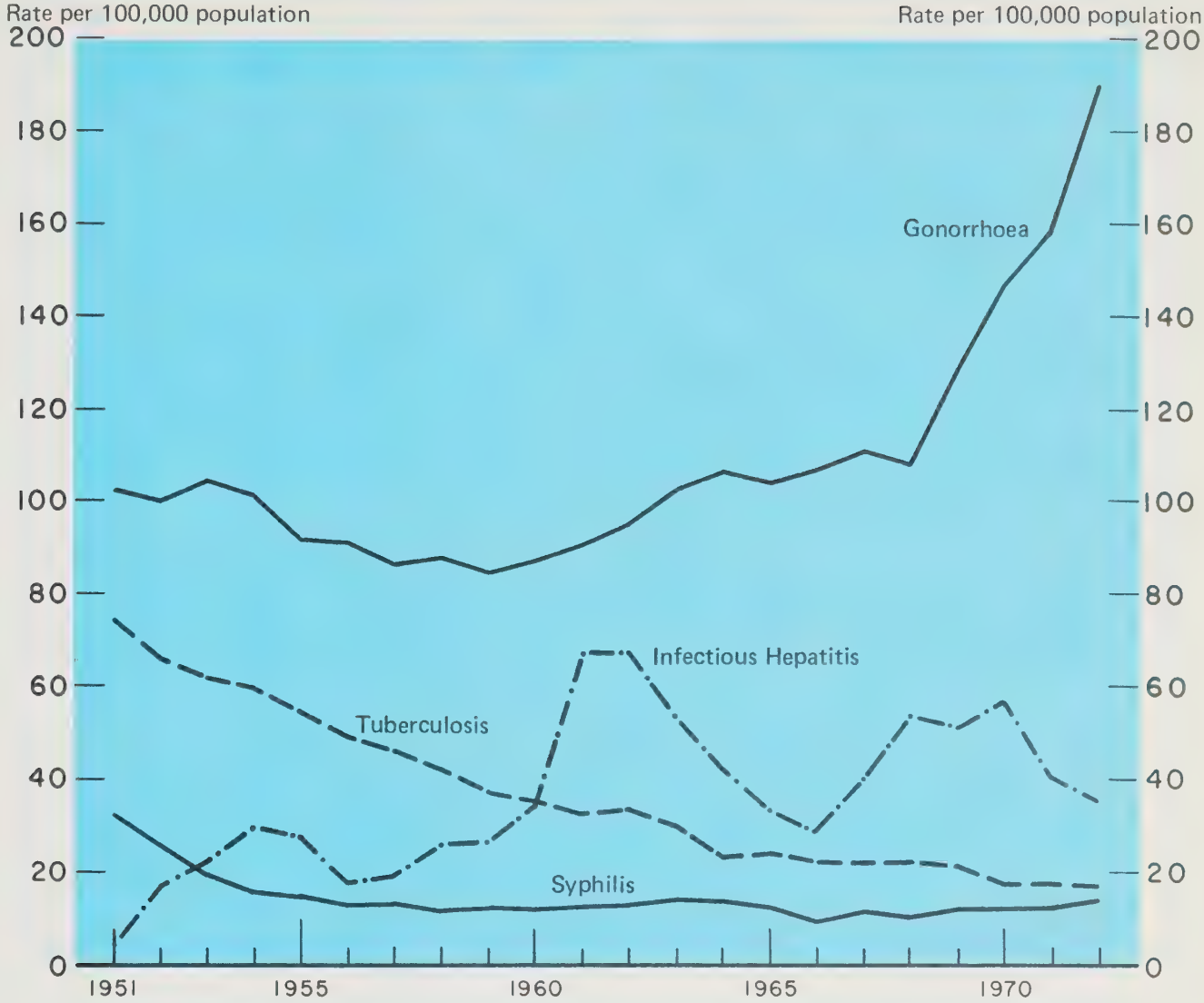


Table 3.14
TUBERCULOSIS AMONG INUIT, REGISTERED INDIANS AND OTHER CANADIANS

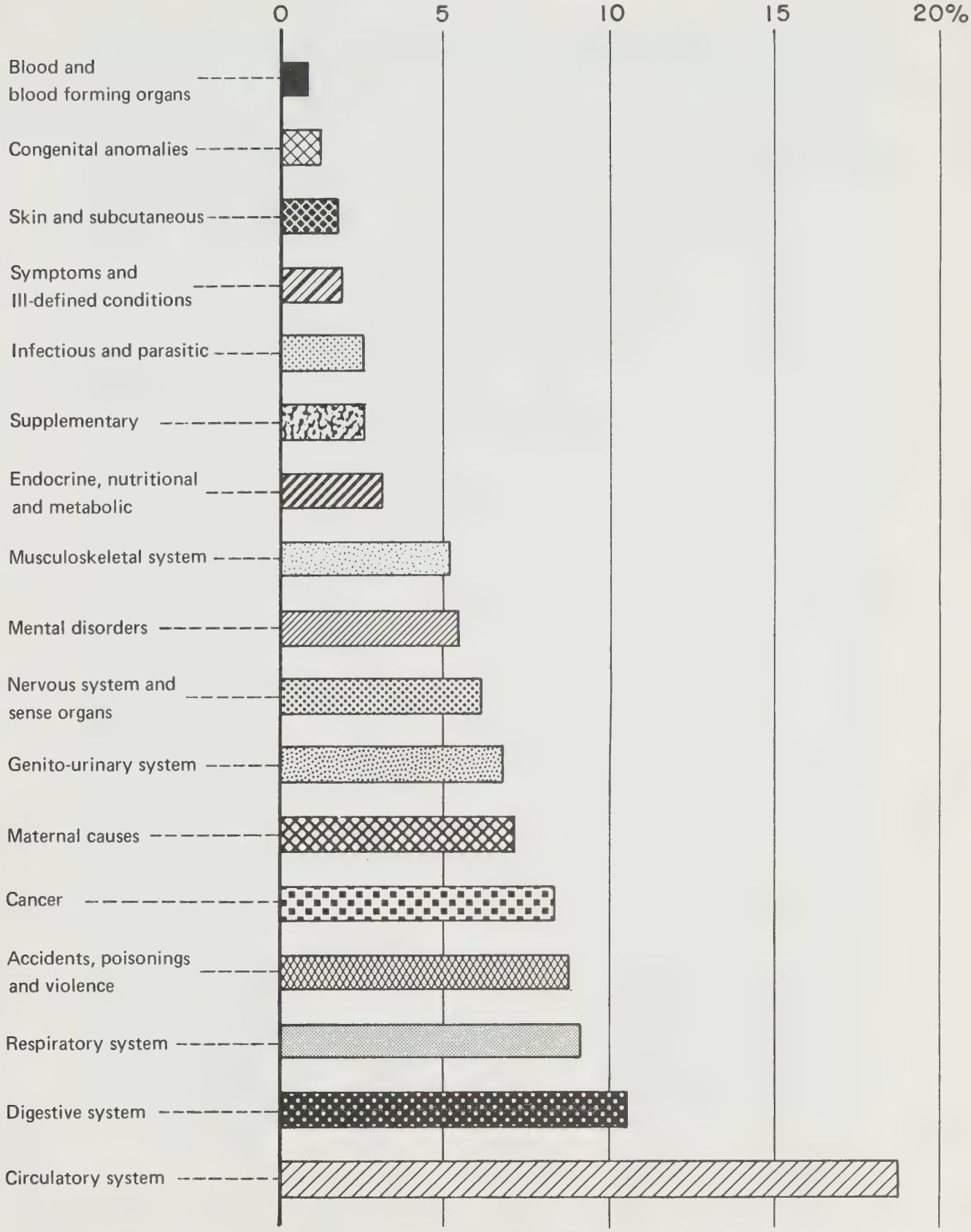
	Total Canada	Inuit	Registered Indians	Other
	rate per 100,000 population			
1965	25	846	163	22
1966	23	882	181	20
1967	23	1,020	161	20
1968	22	810	177	21
1969	21	1,093	166	18
1970	18	672	125	16
1971	18	496	122	17

Table 3.15
HOSPITALIZATIONS BY CAUSE, 1970[1]

	HOSPITALIZATIONS Male	HOSPITALIZATIONS Female	Average length of stay	Hospitalization rate (per 100,000 population) all ages
	per cent		days	
Infectious and parasitic diseases	3.8	2.7	9.4	512
Cancers	4.9	5.9	17.9	884
Endocrine, nutritional and metabolic diseases	2.0	2.1	18.2	328
Diseases of the blood and blood-forming organs	0.9	0.8	11.1	133
Mental disorders	3.7	3.6	17.4	584
Diseases of the nervous system and sense organs	4.8	3.4	17.7	650
Diseases of the circulatory system	12.0	7.6	23.5	1,520
Diseases of the respiratory system	19.5	11.8	7.2	2,426
Diseases of the digestive system	14.6	10.1	10.3	1,935
Diseases of the genito-urinary system	7.5	10.9	8.3	1,541
Complications of pregnancy, child-birth and the puerperium	–	24.9	5.7	4,737
Diseases of skin and subcutaneous tissue	2.4	1.5	10.5	303
Diseases of musculoskeletal system and connective tissue	4.6	3.4	15.8	625
Congenital anomalies	1.4	0.8	13.5	172
Symptoms and ill-defined conditions	3.4	2.5	7.3	465
Accidents, poisonings and violence	13.5	6.2	11.2	1,492
Supplementary classifications	1.0	1.8	20.3	239
ALL CAUSES	100.0	100.0	11.7	16,173
number	1,425,126	2,024,197		

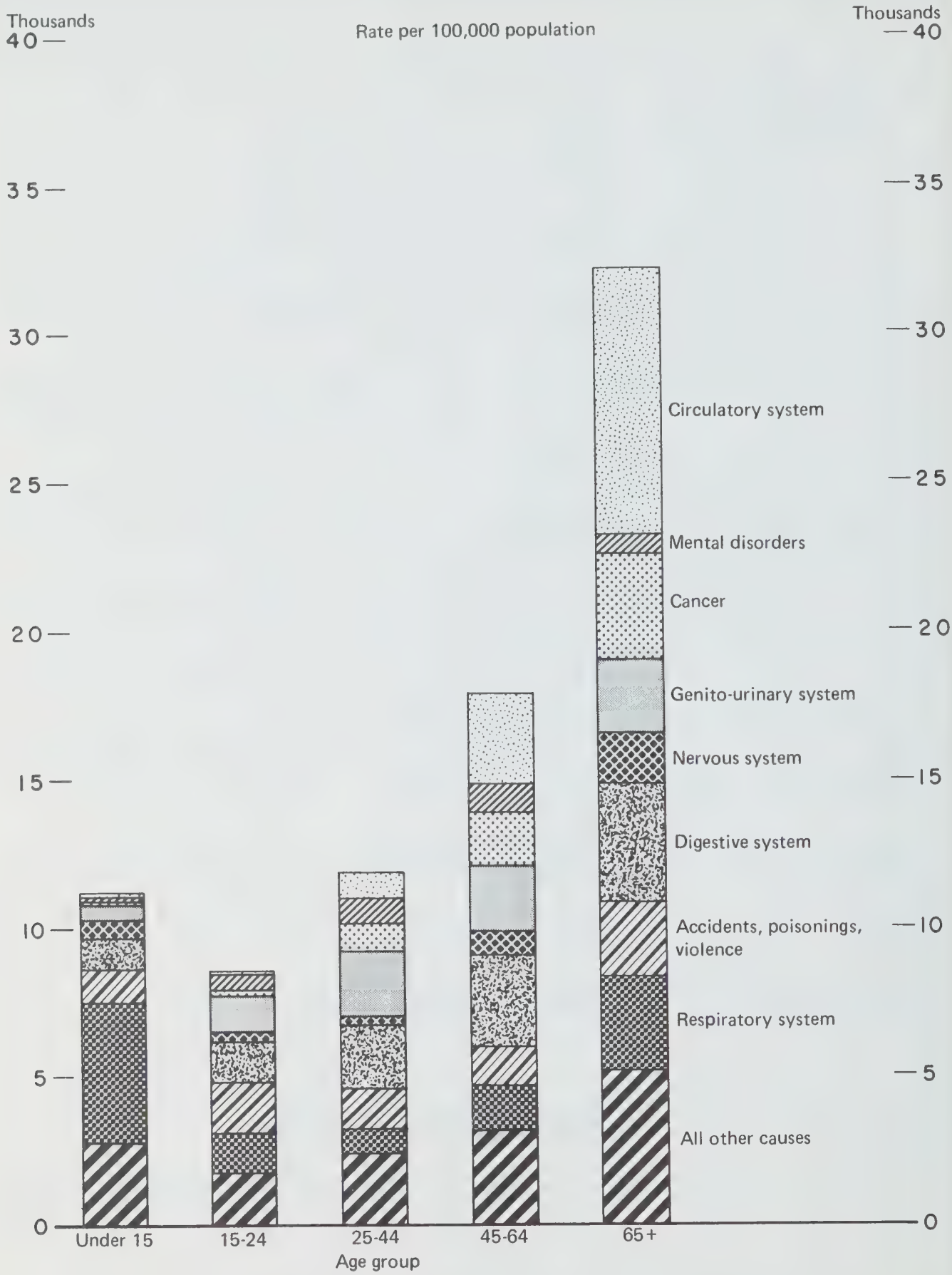
1) Hospitalizations are defined as cases treated and discharged by the hospital; excludes the Yukon and the Northwest Territories.

Chart 3.16
DAYS OF HOSPITALIZATION BY DIAGNOSIS, 1970(1)



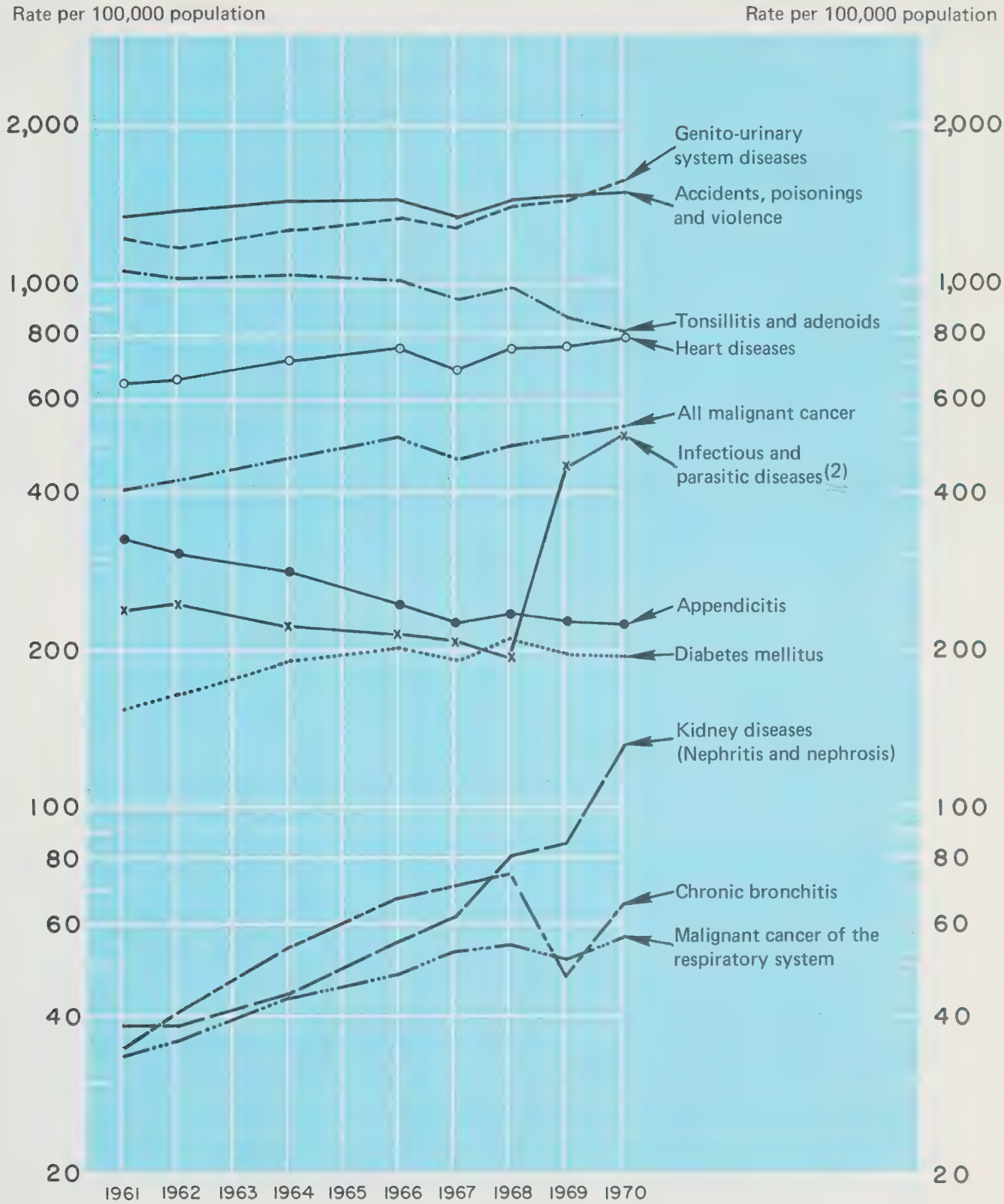
(1) Total number of days of hospitalization: 40,357,019.

Chart 3.17
HOSPITALIZATION RATES BY CAUSE(1) AND AGE GROUP, 1970



(1) Excluding maternity related causes.

Chart 3.18
HOSPITALIZATIONS FOR SELECTED DISEASES(1)



(1) Newborns, the Yukon and the Northwest Territories are excluded from the counts. Ontario is also excluded from the rates for chronic bronchitis and cancer of the respiratory system. Data are not available for 1963 and 1965.

(2) There was change in the classification of diseases in 1969, therefore the rates of 1969 and 1970 are not strictly comparable to the previous rates for infectious and parasitic diseases.

Table 3.19

PSYCHIATRIC INPATIENT FACILITIES: FIRST ADMISSIONS,[1] READMISSIONS[2] AND PATIENTS ON BOOKS[3]

	FIRST ADMISSIONS			READMISSIONS			PATIENTS ON BOOKS		
	1951	1961	1971	1951	1961	1971	1951	1961	1971
	rates per 100,000			numbers			rates per 100,000		
CANADA	78	153	260	3,572	17,661	50,144	431	415	291
Newfoundland	48	83	124	69	388	834	193	204	139
Prince Edward Island	90	224	223	56	240	494	297	497	91
Nova Scotia	74	143	320	152	848	2,497	395	325	230
New Brunswick	69	145	194	164	649	2,197	336	376	231
Quebec	56	106	244	750	2,693	8,842	428	437	350
Ontario	80	177	302	1,153	6,113	22,223	452	421	252
Manitoba	75	197	337	311	1,105	3,206	446	441	347
Saskatchewan	124	197	207	310	1,370	2,178	591	509	242
Alberta	69	128	237	321	1,222	3,377	374	353	325
British Columbia	136	205	200	286	3,033	4,296	427	423	328

1) First admission is defined as the admission to a psychiatric inpatient facility of a person who has no record of previous care in any such facility.
2) Readmission is defined as the admission of a person to a psychiatric inpatient facility who has a record of previous care in any such facility.
3) Patients on books is defined as a census of patients actually resident in a psychiatric inpatient facility as well as those absent on probationary leave, boarding in approved homes or otherwise absent from the institution but not officially separated or discharged. The census is taken at year end.

Chart 3.20

PSYCHIATRIC INPATIENT FACILITIES: FIRST ADMISSIONS, READMISSIONS, PATIENTS ON BOOKS, DISCHARGES AND DEATHS

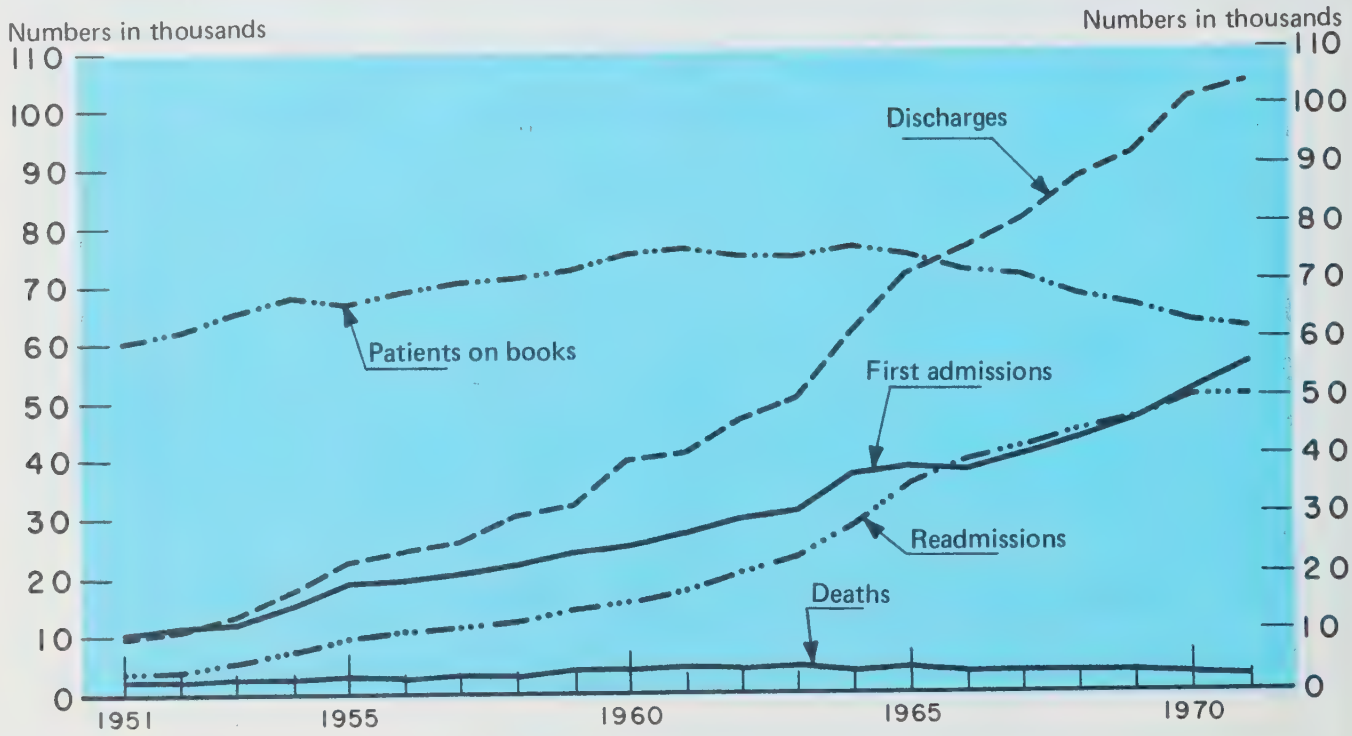


Chart 3.21
PSYCHIATRIC INPATIENT FACILITIES: FIRST ADMISSIONS BY DIAGNOSIS

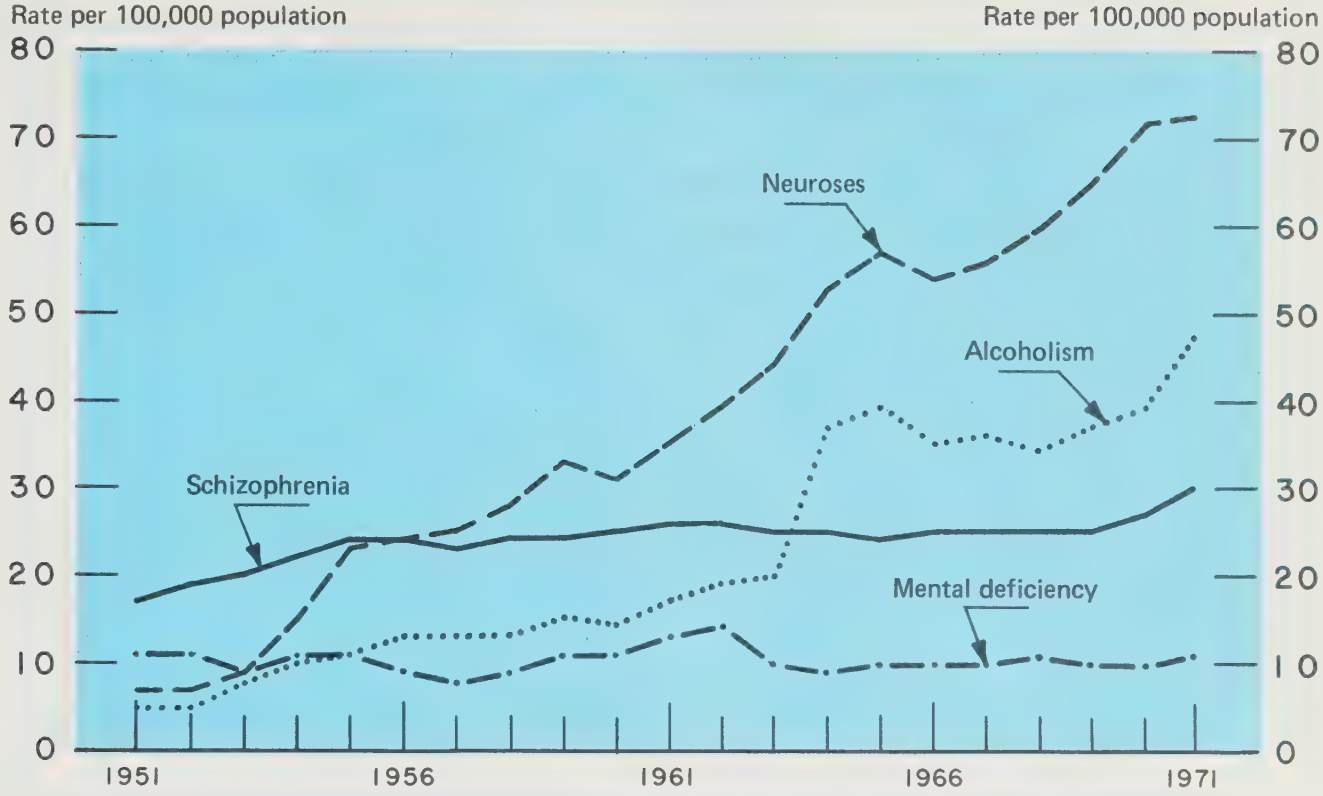


Chart 3.22
PSYCHIATRIC INPATIENT FACILITIES: PATIENTS ON BOOKS BY DIAGNOSIS

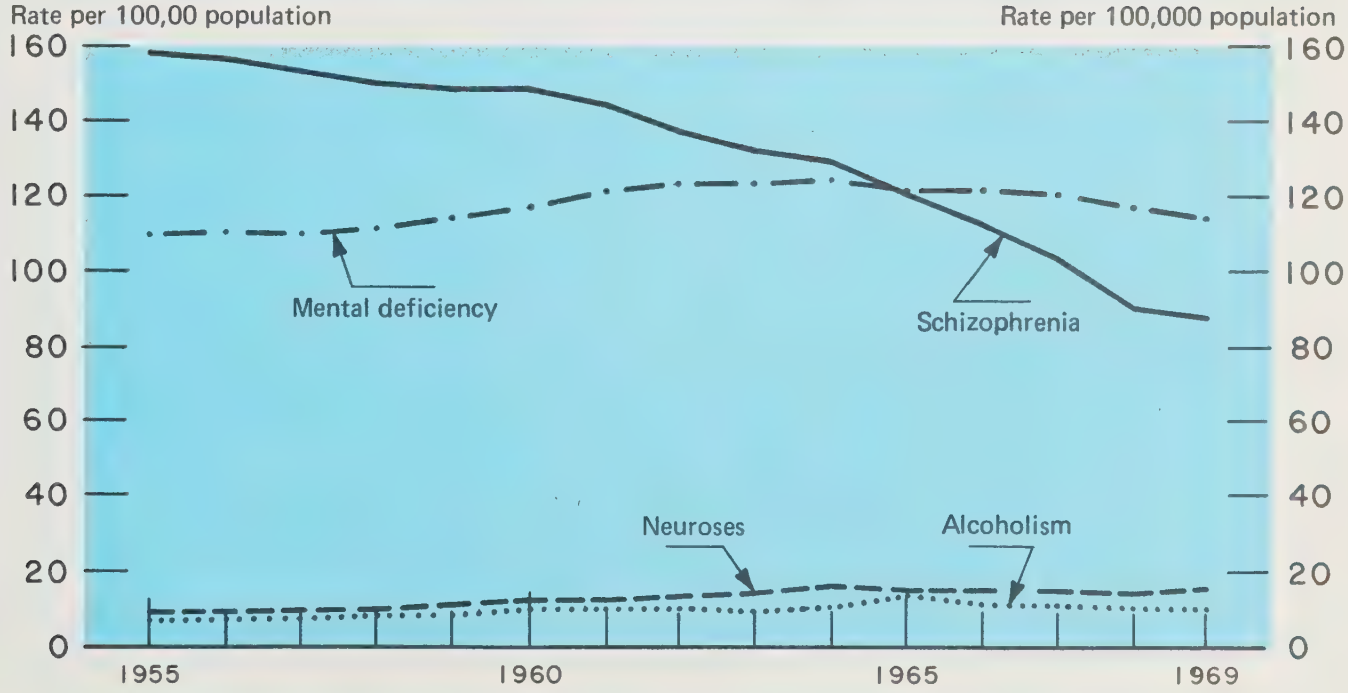
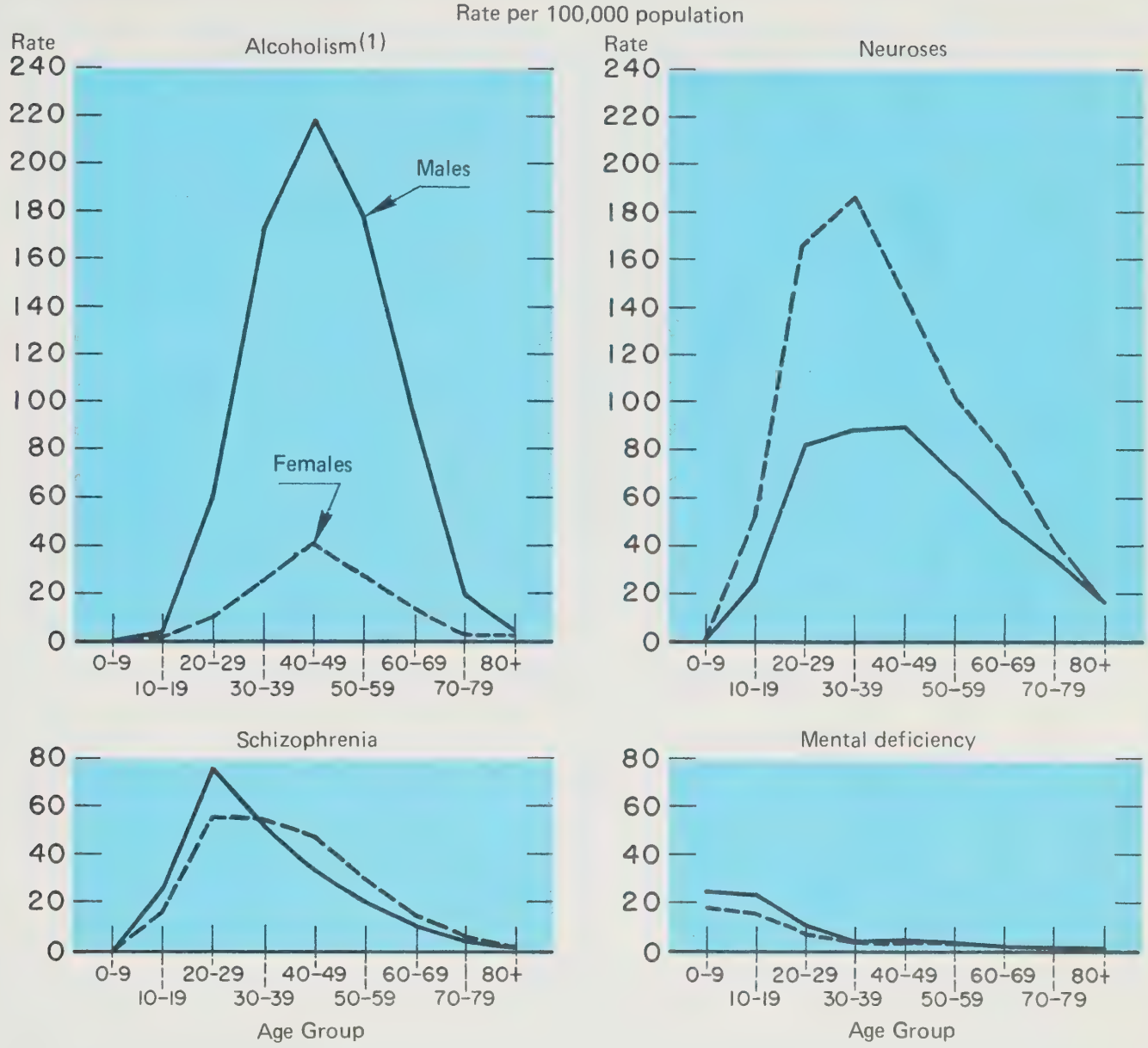


Table 3.23
PSYCHIATRIC INPATIENT FACILITIES: FIRST ADMISSIONS AND PATIENTS ON BOOKS BY DIAGNOSIS, 1969

	First admissions		Patients on books	
	per cent			
Neuroses, personality disorders and other non-psychotic mental disorders	61.8		13.2	
Neuroses		29.5		4.6
Alcoholism		15.0		1.9
Personality disorders		7.0		1.9
Behaviour disorders of childhood		2.4		1.9
Other		7.9		2.9
Psychoses	32.2		47.1	
Schizophrenia		11.6		27.9
Affective psychoses		7.5		5.1
Physically caused psychoses		4.4		6.2
Senile and presenile dementia		2.2		2.7
Alcoholic psychosis		1.7		1.2
Paranoid states		1.5		1.6
Other and unspecified		3.3		2.4
Mental retardation	4.6		36.3	
Other stated and not stated conditions	1.4		3.4	
ALL DIAGNOSES	100.0		100.0	
number	46,408		66,552	

Chart 3.24
PSYCHIATRIC INPATIENT FACILITIES: FIRST ADMISSIONS BY DIAGNOSIS, AGE AND SEX, 1971



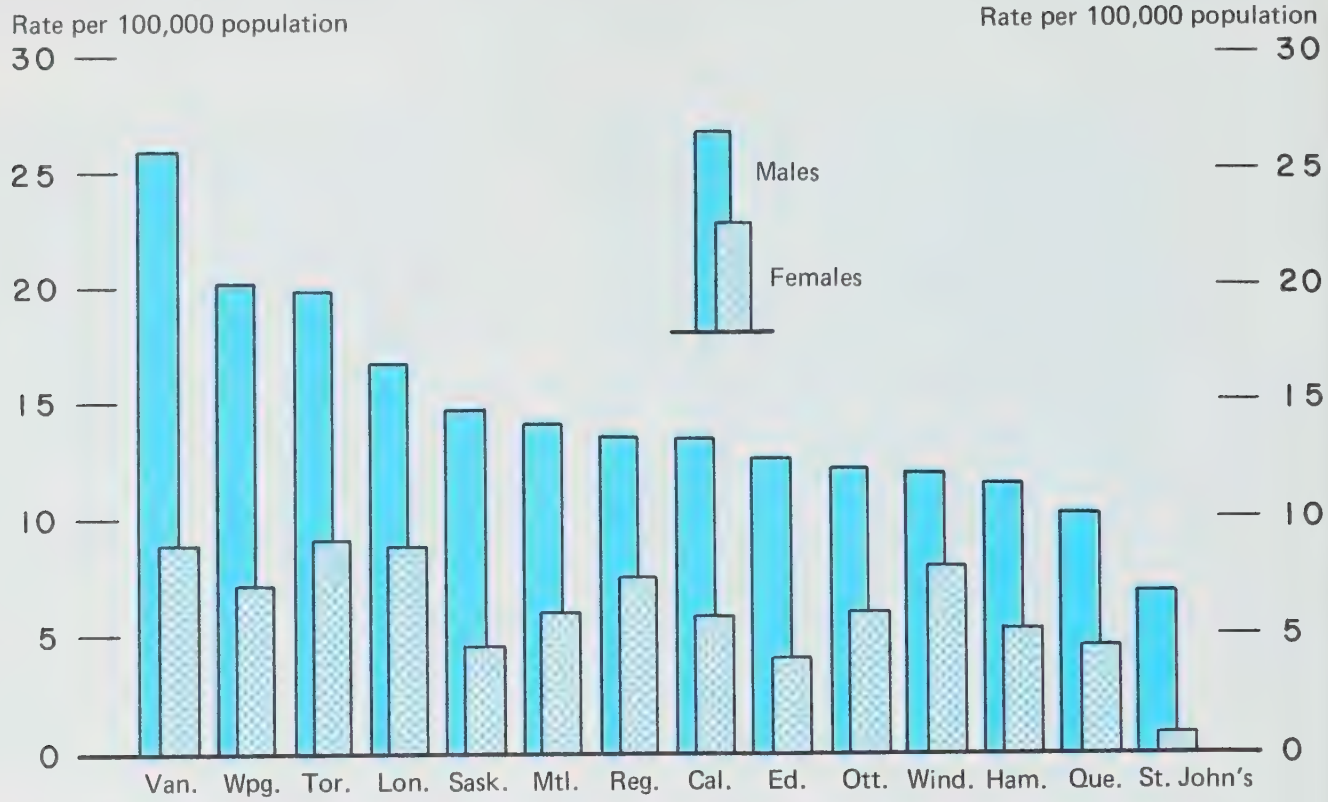
(1) Alcoholism with and without psychosis.

Table 3.25
PATIENTS WITH A PSYCHIATRIC DIAGNOSIS LEAVING[1] INPATIENT FACILITIES, 1970

	Male	Female	Total
Separations from non-psychiatric wards of general hospitals	38,058	48,924	86,982
Separations from psychiatric inpatient facilities[2]	54,376	50,085	104,461
TOTALS	92,434	99,009	191,443

1) Includes discharges and deaths.
2) Includes patients from the psychiatric units of public general hospitals.

Chart 3.26
SUICIDE RATE FOR SELECTED CITIES, 1965-67(1, 2)



(1) There is a great deal of controversy over the reliability of these statistics as it is well known that there is a tendency to attribute death to other causes rather than suicide due to the social stigma attached to suicide. It may be that part of the regional differences are accounted for by the variations in attitudes towards suicide.

(2) The deaths were averaged over the years 1965-1967 and then the rates were calculated. The rates are per 100,000 population.

Chart 3.27
SUICIDE RATE

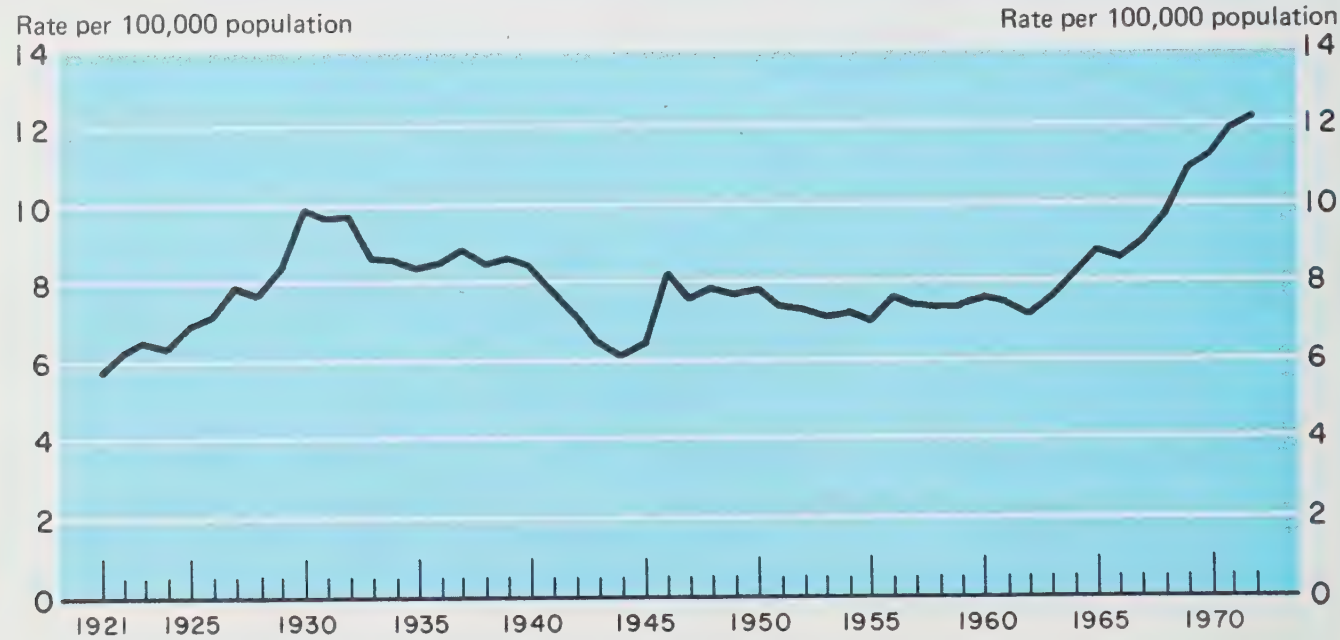


Chart 3.28

SUICIDE RATE BY AGE AND SEX, 1971

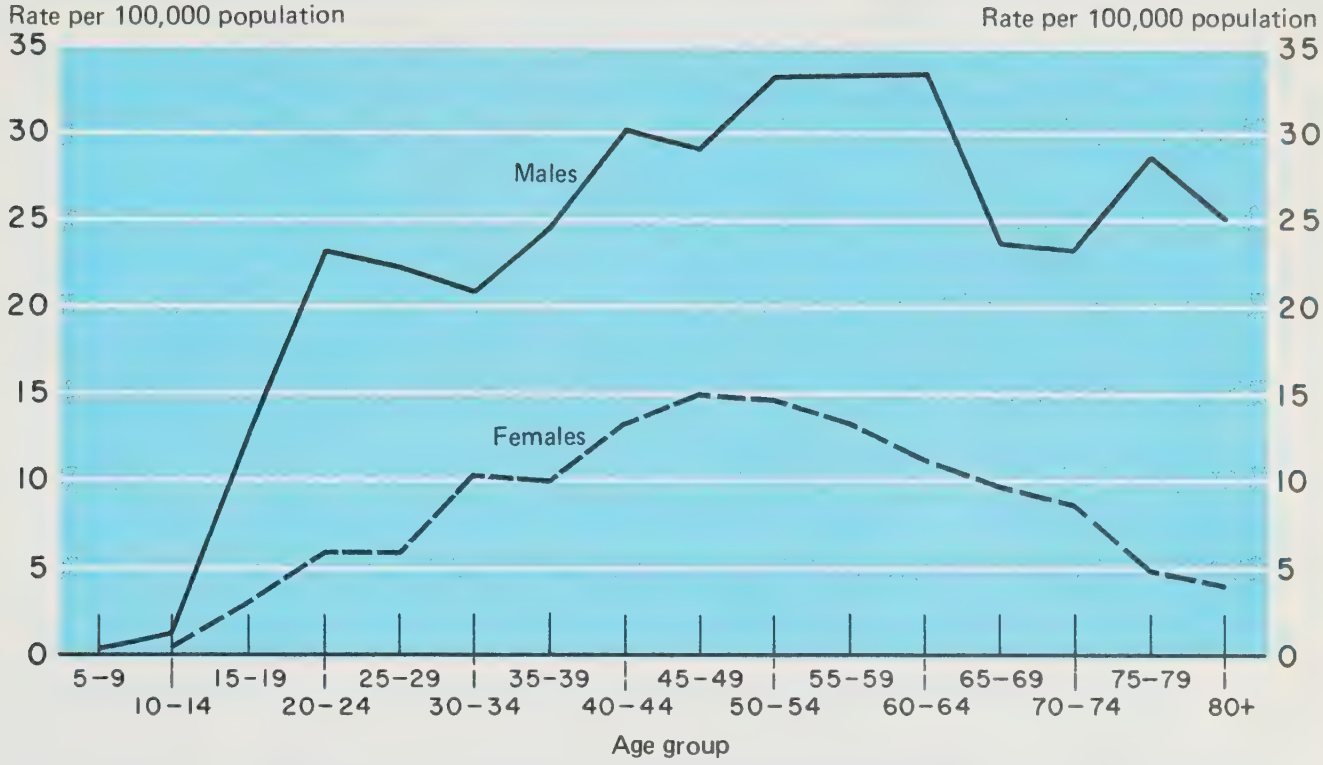


Table 3.29
SUICIDES BY CAUSE, 1971

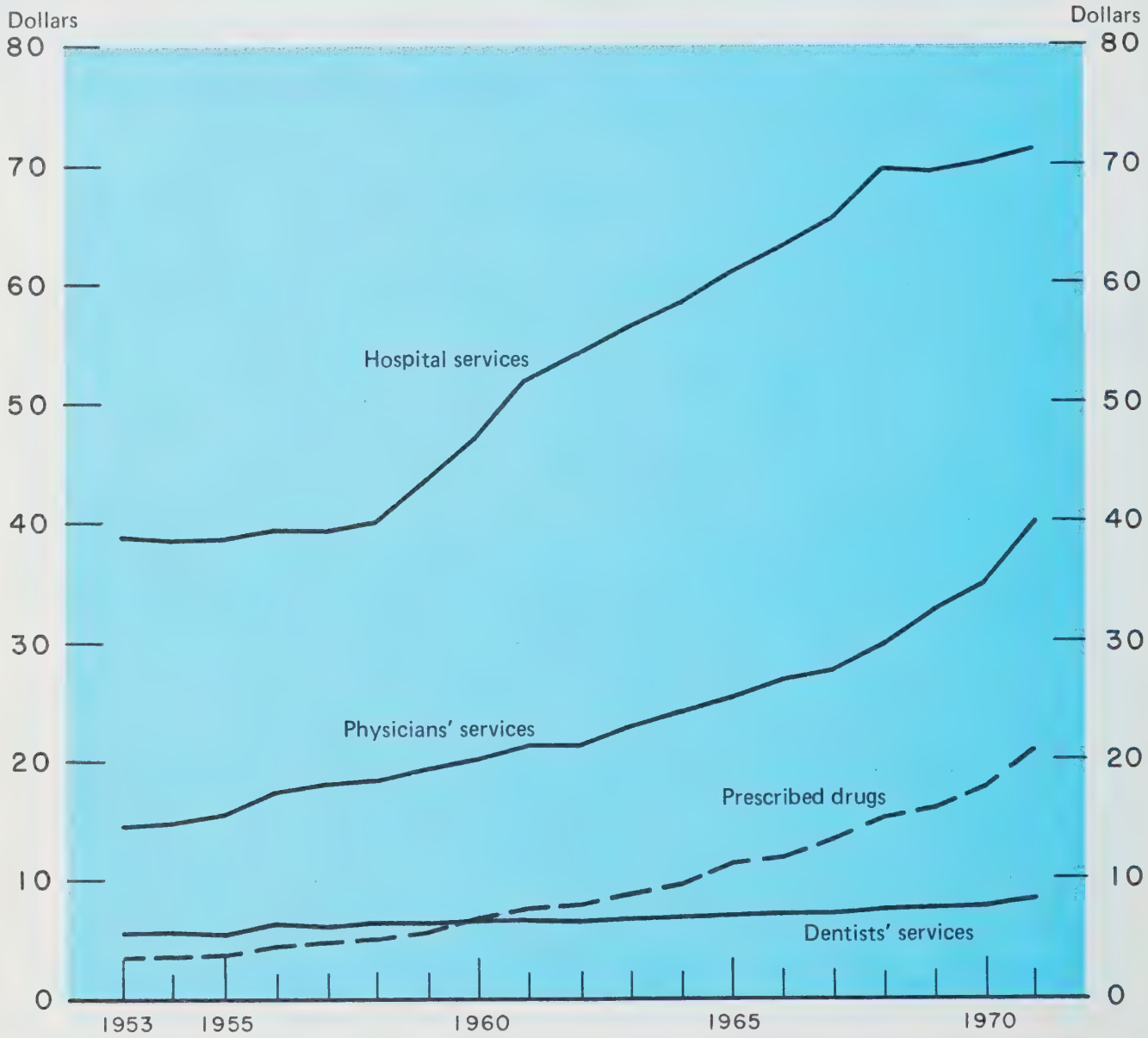
	Male	Female	Total
Poisonings	441	383	824
Liquids and solids	247	344	591
Gases	194	39	233
Hanging and suffocation	360	107	467
Drowning	81	64	145
Firearms and explosives	847	77	924
Sharp instruments	30	13	43
Jumping	59	26	85
Other	48	23	71
TOTALS	1,866	693	2,559

Table 3.30
EXPENDITURES ON PERSONAL HEALTH CARE[1]

	Hospital services	Physicians' services	Dentists' services	Prescribed drugs
1956	633.0	277.9	99.0	68.7
1961	949.0	388.3	116.7	135.8
1966	1,264.2	536.5	140.6	236.9
1971	1,538.3	863.9	174.4	450.4

1) Annual expenditures in millions of constant 1961 dollars.

Chart 3.31
EXPENDITURES PER PERSON ON PERSONAL HEALTH CARE(1)



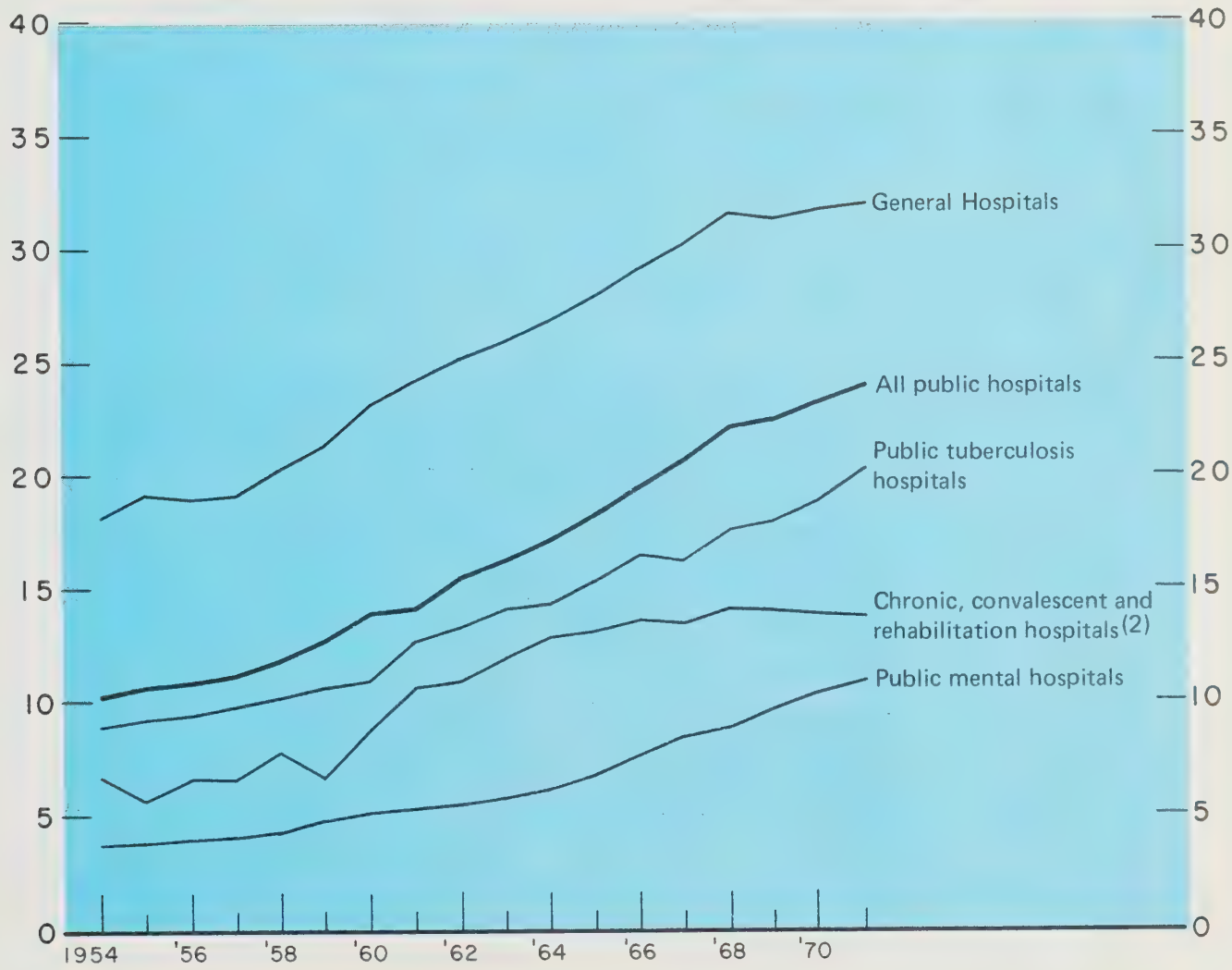
(1) Expenditure in constant 1961 dollars.

Table 3.32
PUBLIC GENERAL AND ALLIED SPECIAL HOSPITALS[1]

	Operating hospitals	Rated bed capacity per 1,000 population	Admissions	Average daily number of patients	Average length of stay	Cost per patient day
					days	current $
1953	857	5.13	1,932,598	59,912	10.9	..
1956	909	5.37	2,273,290	69,336	11.0	14.91
1961	946	5.51	2,961,322	81,920	11.1	23.10
1966	1,027	6.11	3,042,777	98,372	11.7	36.06
1971	1,043	6.41	3,555,838	112,078	11.3	61.58

1) General hospitals are defined as hospitals primarily for diagnosis and short-term treatment for a wide range of diseases or injuries. Mental and tuberculosis hospitals are excluded. Allied special hospitals include children's, chronic, convalescent, rehabilitation and other hospitals.

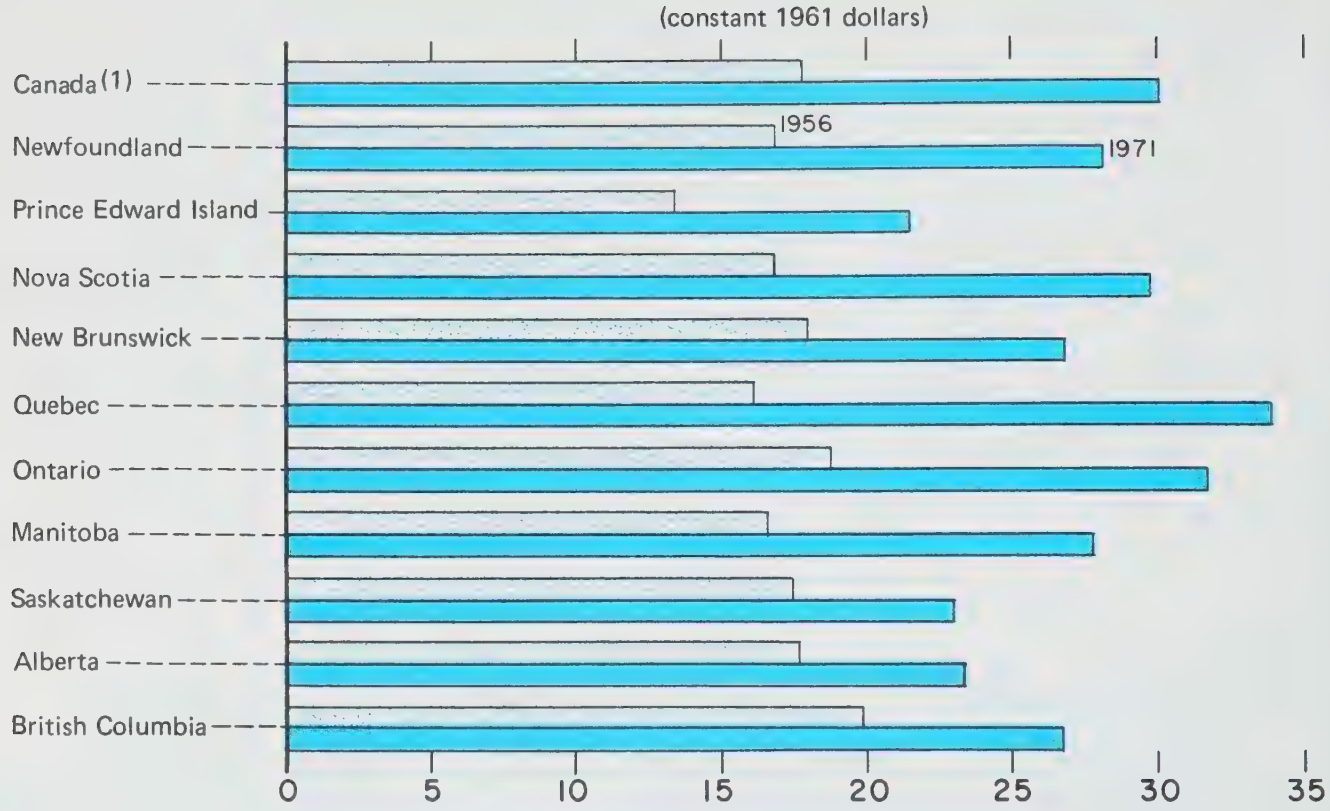
Chart 3.33
COST PER PATIENT DAY BY TYPE OF PUBLIC HOSPITAL(1)



(1) Constant 1961 dollars.

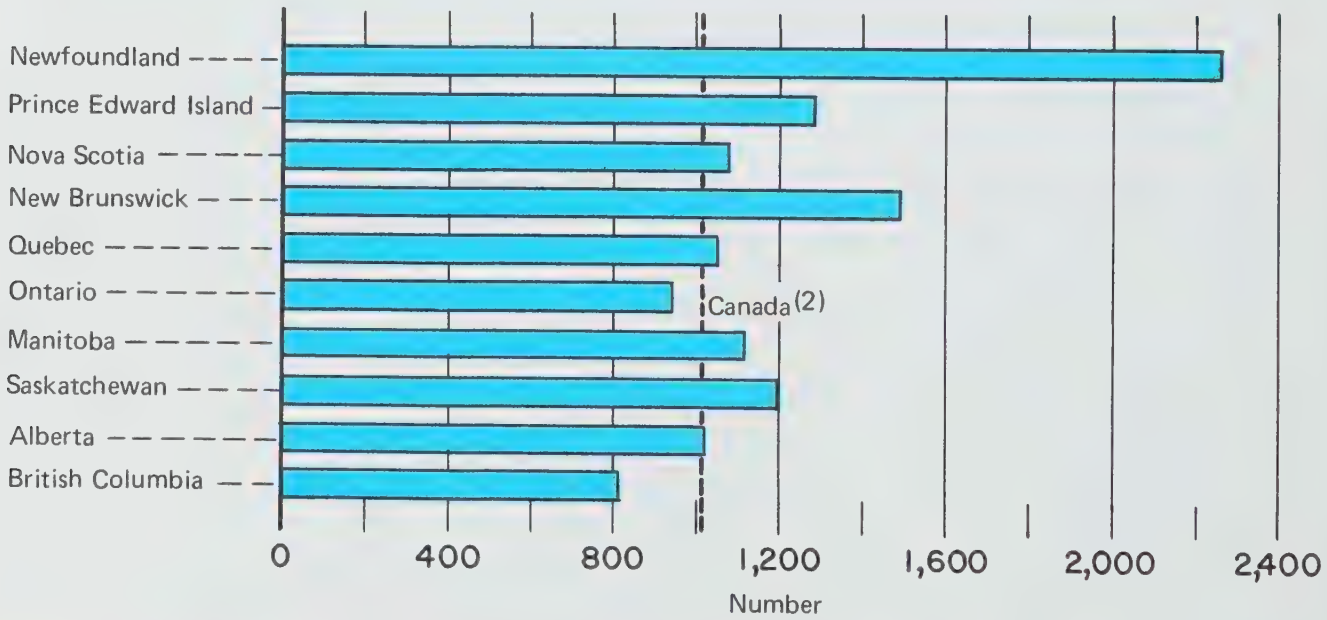
(2) Includes extended care hospitals.

Chart 3.34
COST PER PATIENT DAY, 1956 AND 1971



(1) Includes the Yukon and the Northwest Territories.

Chart 3.35
POPULATION PER PHYSICIAN, 1971(1)



(1) Estimated number of Active Fee Physicians, see Concepts and Definitions.

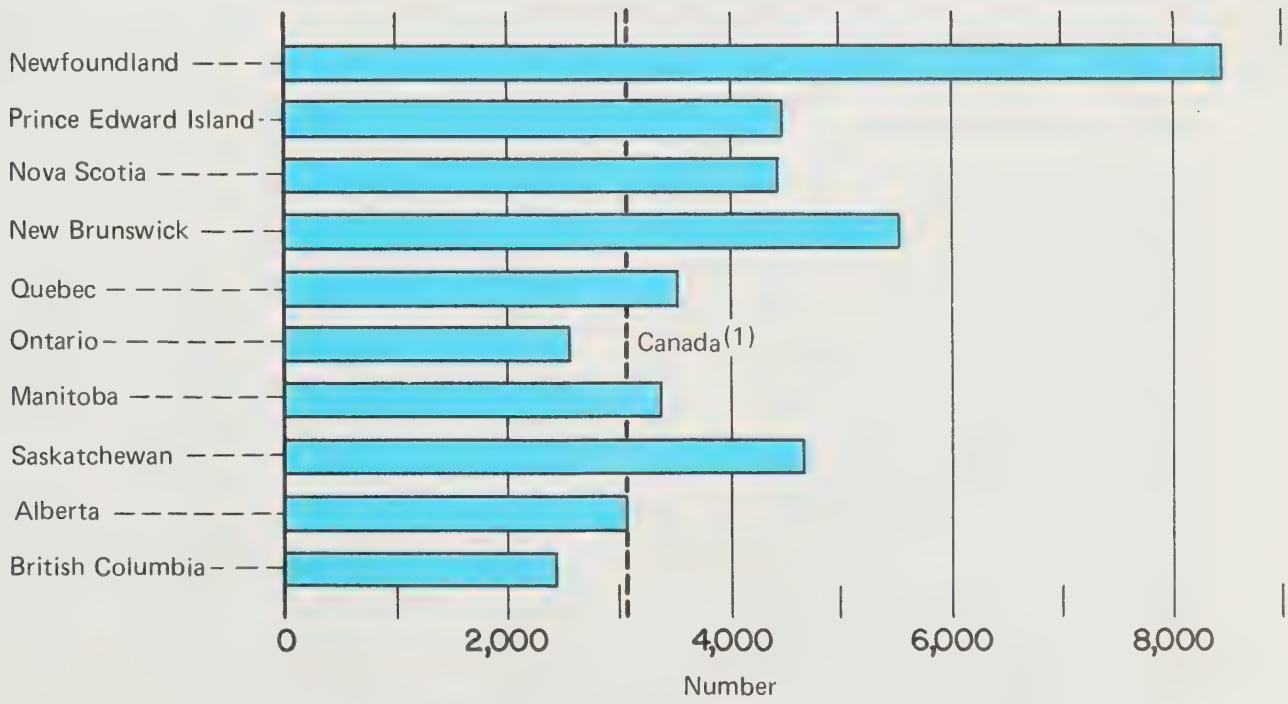
(2) Canada includes the Yukon and the Northwest Territories.

Table 3.36
EXPENDITURE PER PERSON ON DENTISTS' SERVICES[1]

	1961	1966	1971
CANADA	6.39	7.02	8.07
Newfoundland	1.98	2.20	2.79
Prince Edward Island	3.93	4.43	4.70
Nova Scotia	3.48	4.59	4.66
New Brunswick	3.43	3.69	4.21
Quebec	3.97	4.61	5.08
Ontario	8.55	9.36	10.70
Manitoba	6.65	6.26	7.58
Saskatchewan	5.27	5.49	5.36
Alberta	7.00	7.88	8.97
British Columbia	9.85	9.87	11.70

1) Annual expenditure in constant 1961 dollars.

Chart 3.37
POPULATION PER DENTIST, 1971



(1) Canada includes the Yukon and the Northwest Territories.

Table 3.38
POPULATION VISITING A DENTIST DURING 1967

	Canada	Atlantic	Quebec	Ontario	Prairie	British Columbia
	percentage of the population					
ALL AGES	41.8	31.0	33.3	47.9	46.0	48.5
0 - 13 years	44.5	29.9	38.5	49.0	49.4	54.3
14 - 16 years:						
Male	54.1	43.5	43.8	62.4	56.7	69.1
Female	61.3	51.5	46.9	69.4	70.7	71.7
17 - 24 years:						
Male	47.3	37.1	40.1	53.2	52.5	55.0
Female	55.6	47.7	45.5	63.3	61.9	62.8
25 - 34 years:						
Male	40.9	33.7	29.1	47.5	47.6	48.0
Female	47.7	42.3	33.9	55.7	55.0	55.6
35+ years:						
Male	32.8	20.9	24.1	39.6	35.7	37.1
Female	32.7	22.3	22.5	40.5	34.7	36.9

Table 3.39
MAIN CAUSES OF DISABILITY, 1965

		Estimated number of people afflicted, 1965
Mental and emotional disorders		2,032,000[1]
Diseases of the heart and circulation including cerebrovascular diseases (mainly due to arteriosclerosis)		775,000[2,3]
Arthritis and rheumatic diseases		333,000[2]
Neurological disorders, including:		
Epilepsy	105,700[2,5]	
Cerebral palsy	32,300[2,5]	
Multiple sclerosis and other demyelinating diseases	29,400[2,5]	
Parkinsonism	29,400[2,5]	
Muscular dystrophy	11,700[2,5]	
Deafness		176,000[2]
Mental retardation		587,000[1,4]
Blindness and near blindness:		137,000[2]
Registered with CNIB	25,339	
Prevention cases, registered with CNIB	117,995	
Diabetes mellitus		150,700[1]

1) Calculated using the 1965 population of Canada and the rates given in the Royal Commission Report on the Health of the Canadian People by Robert Kohn, 1965.
2) "Illness and Health Care in Canada, Canadian Sickness Survey 1950-51".
3) "Hospital Morbidity Statistics, January 1 - December 31, 1964".
4) "Mental Retardation in Canada". Report of the Federal-Provincial Conference, Ottawa, Canada, October 19-22, 1964. (Included in 1.)
5) Prorated according to the Estimated Number of People Afflicted as given in "What are the Main Causes of Disability in The United States? ".

Table 3.40
PERSONS WITH DEFICIENT DIETS,[1] 1970-72

	NUTRIENT				
	Protein	Iron	Calcium	Vitamin A	Vitamin C
	per cent				
0- 4 years	1.1	23.5	13.1	3.2	3.9
5- 9 "	0.1	13.9	14.8	5.0	2.2
10-19 years:					
Male	1.1	17.0	20.3	10.8	2.8
Female	3.5	40.0	34.9	25.5	4.7
20-39 years:					
Male	1.6	3.8	8.6	14.3	3.5
Female	9.2	37.7	19.3	24.4	5.8
40-64 years:					
Male	7.2	3.5	4.4	15.1	3.4
Female	11.1	30.7	17.8	29.6	4.2
65 + years:					
Male	7.1	4.9	9.9	23.1	4.0
Female	14.5	8.4	20.0	32.1	1.9
Pregnant women[2]	3.3	24.8	19.9	10.9	2.0

1) Percentages of the general population assessed as having inadequate intakes of these nutrients in their diets.
2) Includes volunteers, does not constitute a probability sample.

Chart 3.41
OVERWEIGHT ADULTS, 1970-72

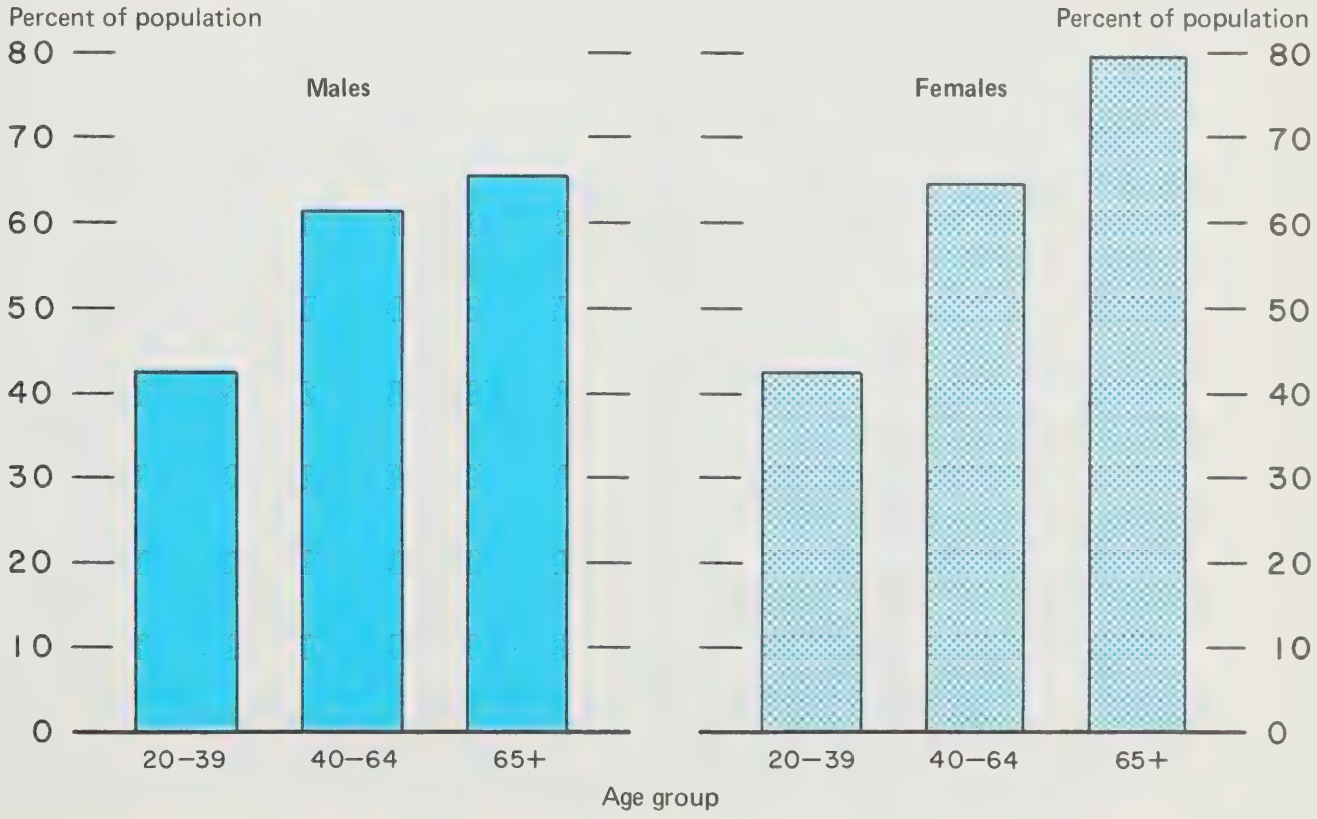


Chart 3.42
REGULAR SMOKERS

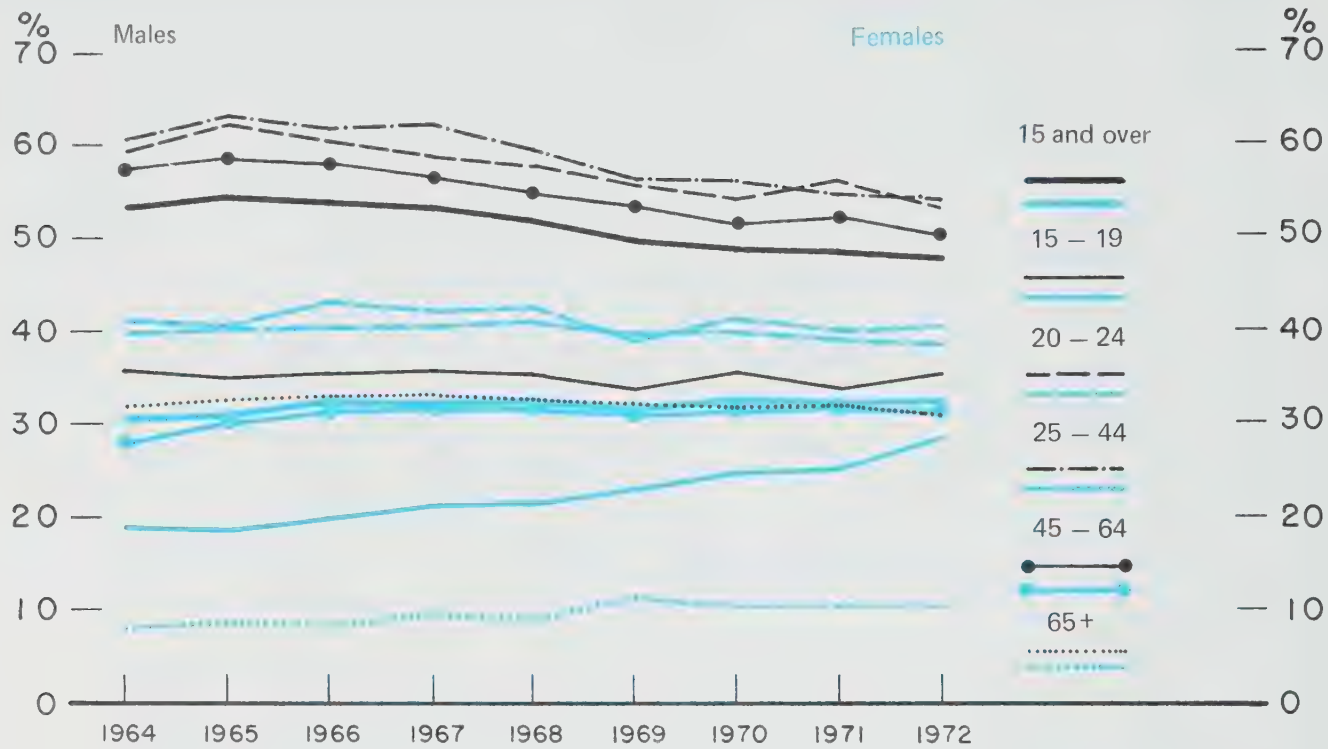
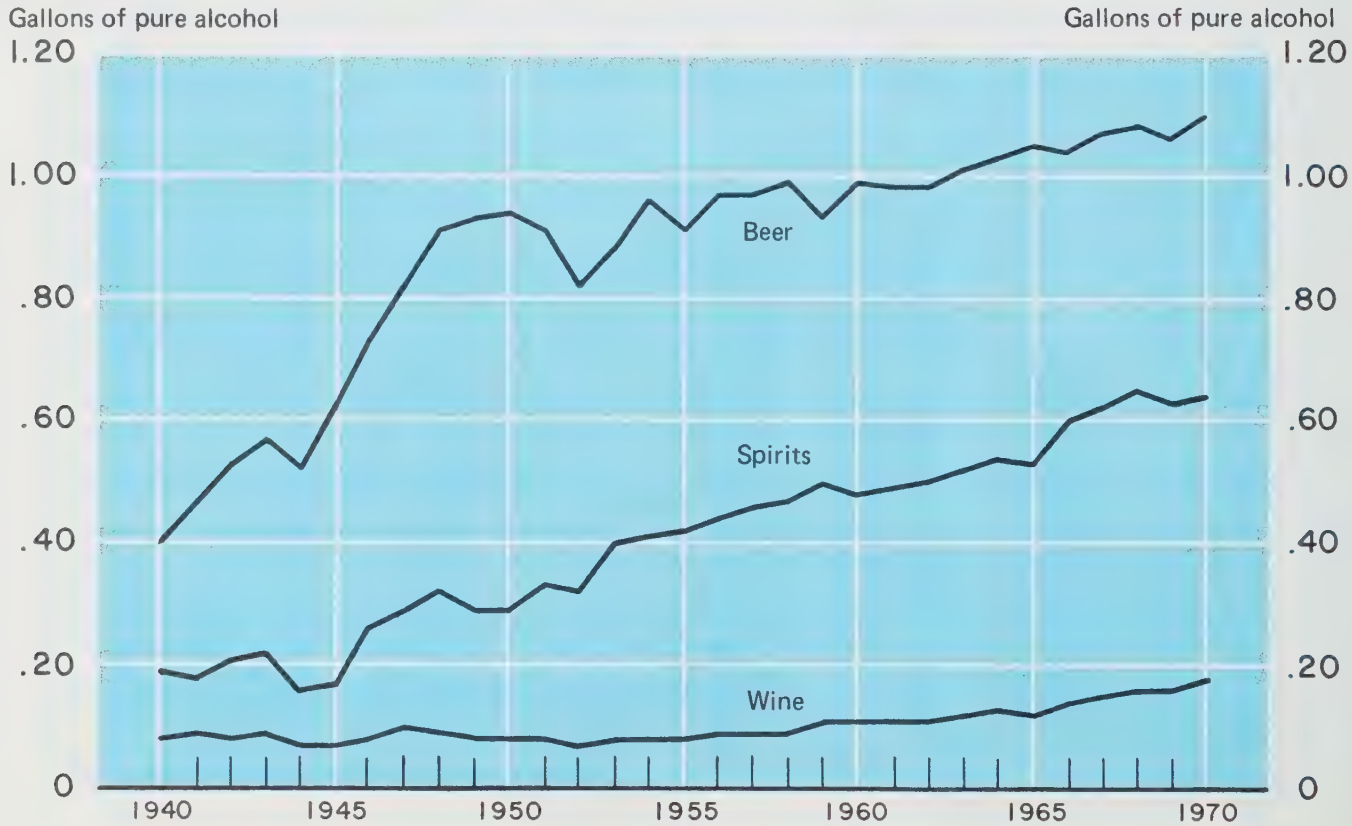
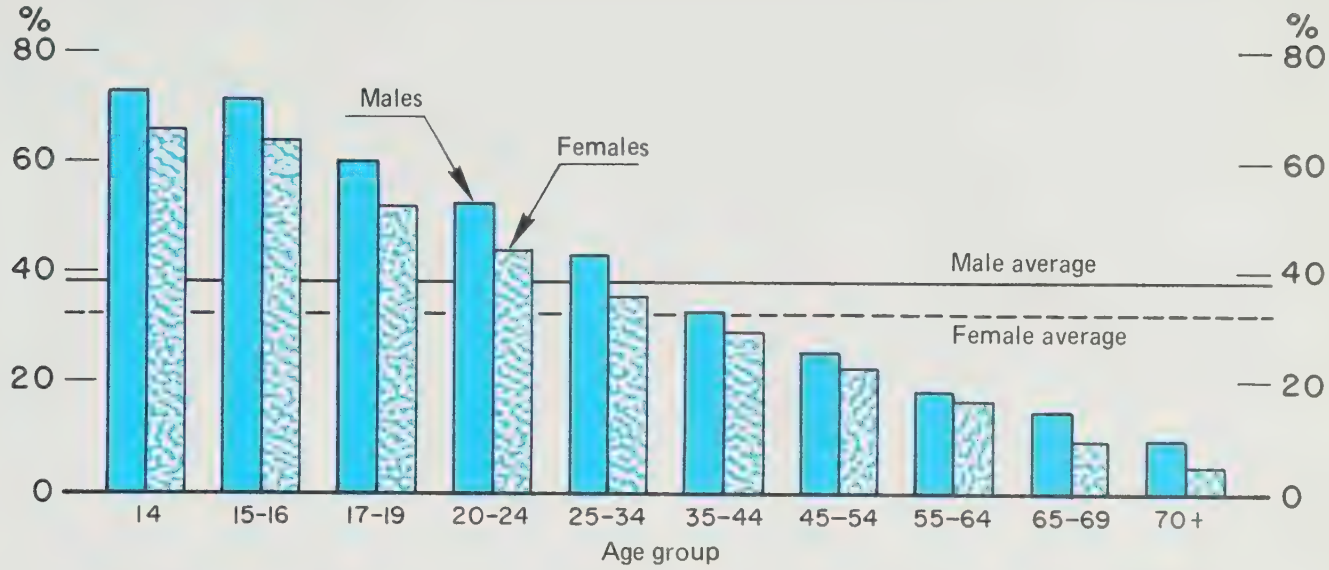


Chart 3.43
CONSUMPTION PER PERSON OF ALCOHOLIC BEVERAGES (1)



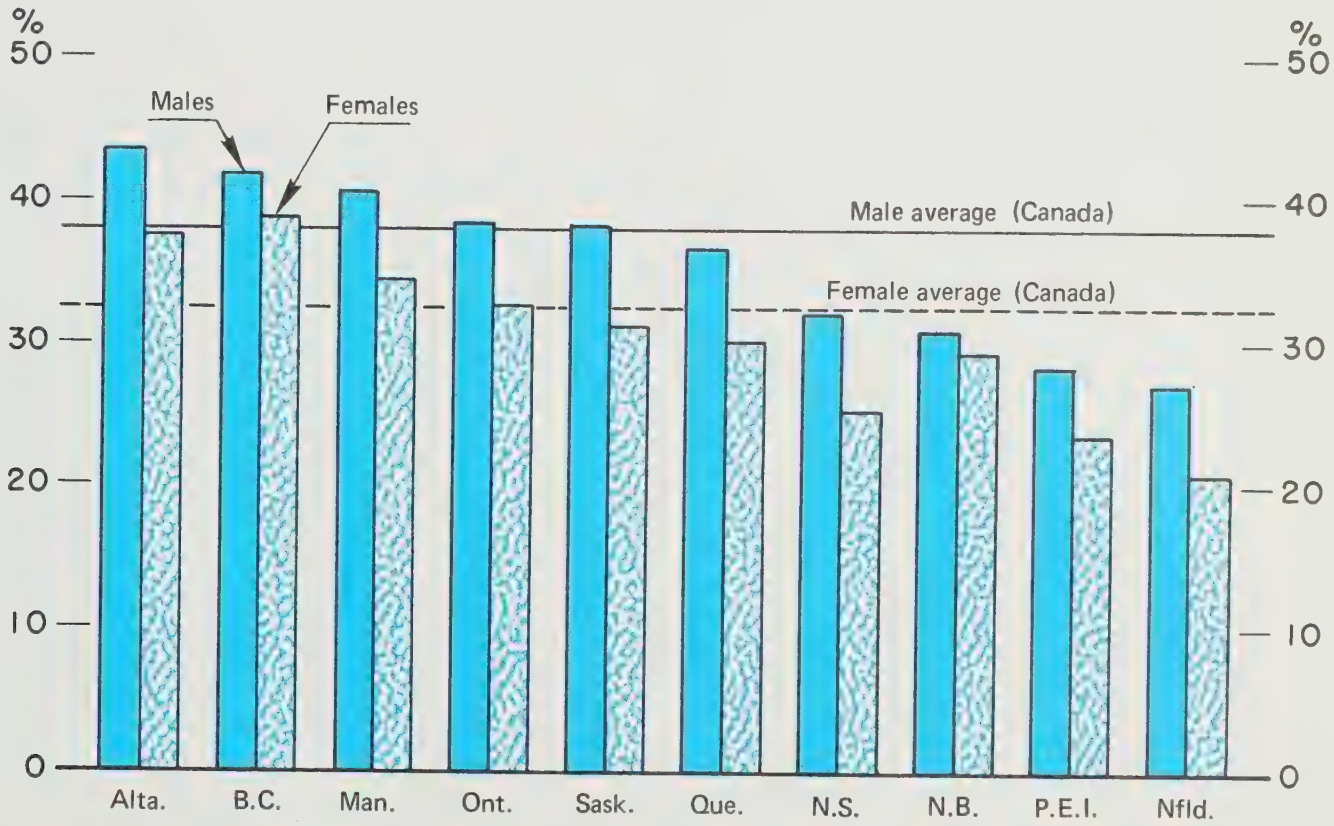
(1) For persons age 15 and over.

Chart 3.44
PARTICIPATION IN SPORTS AND PHYSICAL ACTIVITIES, JANUARY-MARCH 1972(1)



(1) Percentage of persons 14 years of age and over indicating participation per week in at least one hour of sports (bowling, curling, hockey, badminton, etc.) and/or one hour or more of physical activity (jogging, cycling, exercise programs, etc.), between January and March 1972.

Chart 3.45
PARTICIPATION IN SPORTS AND PHYSICAL ACTIVITIES, BY PROVINCE, JANUARY-MARCH 1972(1)



(1) Percentage of persons 14 years of age and over indicating participation per week in at least one hour of sports (bowling, curling, hockey, badminton, etc.) and/or one hour or more of physical activity (jogging, cycling, exercise programs, etc.), between January and March 1972.

Education

4

Like the possession of health, education is a vital concern both to individuals and society as a whole. Acquisition of basic skills and knowledge, continuing self-development through advanced learning, extension of the economic potential of individuals, transmission of cultural values, increasing equality of opportunity – these are some of the broad concerns of education, and they frequently interact, and reinforce each other.

To what degree will informal learning through work experience be valued in the 1970s? What emphasis is placed on learning not only technical knowledge, but also social skills needed for familial, occupational and community living? What proportion of the Canadian people, and who, are getting more education? To what extent do education systems help Canadians achieve their educational and occupational aspirations? Are the benefits from formal education in proportion to the nature and magnitude of our allocation of resources to the educational system? Are teachers increasingly more qualified to teach pupils of varied cultural and economic backgrounds?

Such questions are socially (and economically) relevant, but it is extremely difficult to measure the many subtle and subjective benefits of education. No satisfactory output or "result" measures exist as yet in Canada. Consequently, such proxy measures as enrolment at various levels, average number of years of education, degrees granted, retention of students, student participation rates, and some tentative indications of the monetary rates of return from various levels of education, have traditionally been used and are included in this chapter. Also shown are measures that illustrate a few special Canadian concerns such as enrolments in northern schools, second-language training, and the development of community colleges.

ACQUISITION OF BASIC KNOWLEDGE AND SKILLS

In Canada today, basic education comprises formal schooling up to the end of secondary school. At that point, students from a wide range of cultural and economic backgrounds have hopefully acquired the minimum basic knowledge, skills, values and social graces needed to participate in community life and the work world. Over the last decade, an increasing proportion of Canada's school-age population has reached this basic standard. Growth in basic formal education has also taken place at the lower end of the school spectrum, with a marked increase in the proportion of young children attending classes before entering Grade I. Another noteworthy change has been the increasingly large percentage of elementary students, and the substantial percentage of secondary students, learning the second official language. The 1971 Student Census provided evidence that in each province, with each higher grade, an increasing proportion of students perceive themselves as being conversant in both official languages.

CONTINUING SELF-DEVELOPMENT THROUGH ADVANCED LEARNING

Self-development, one of the fundamental concerns of all educational efforts, continues beyond the basic level. It is difficult to judge what proportion of this process is accomplished by informal or formal means. Statistically, however, it is only the latter we can capture, and even here the emphasis has traditionally been on education provided by universities. Advanced education is valued by Canadians as an end in itself, as a factor contributing to increased income potential, and as an element of personal enrichment. Over the decade of the 1960s an increasing proportion of the population attained a university education.

Today in Canada, opportunities for advanced education are reflected in the wide array of post-secondary programs for full- and part-time students. In the last 10 years, there has been a remarkable expansion in attendance at all types of post-secondary institutions. In addition, a substantial change in the composition of post-secondary institutions has taken place. Nurse training, once provided in hospitals, is now increasingly offered at universities and colleges. Normal schools and teachers' colleges, which formerly provided teacher training, have been greatly reduced; almost all teacher training is now given at universities. At the same time, community colleges have incorporated classical colleges, institutes of technology, junior colleges and regional and vocational colleges, thereby expanding significantly.

However, there still are approximately twice as many students enrolled in the traditional universities as in community colleges. Largely due to university transfer programs, (i.e. a program allowing a student who studies in a community college to obtain university credits for his work) the previously sharp distinctions between these kinds of post-secondary education have become blurred.[1]

The full-time enrolment ratio of females in post-secondary education as a whole has remained virtually unchanged over the last decade, although the ratios decreased in non-university programs and increased substantially in universities. However, "many fields of learning still remain substantially male preserves",[2] particularly in the high-ranking professions.

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[1]See Concepts and Definitions, Community Colleges and CEGEPs.

[2]*Report of the Royal Commission on the Status of Women in Canada* (Ottawa: Queen's Printer, 1970), p. 9.

One important aspect of the propensity to obtain advanced learning is the fact that many people no longer regard education as an activity to be completed before entering adulthood, but rather as a continuous lifelong process. Evidence of this can be found both in the numerous resources available at community colleges and universities for adult continuing education, and in the substantial numbers of enrolments in these programs. This continued education is chiefly in the form of professional updating, vocational upgrading and retraining, or self-enrichment.

ECONOMIC POTENTIAL OF INDIVIDUALS

Although many factors influence the difference in earnings between individuals (e.g. ability, socio-economic status, energy, health, social skills), evidence shows that formal educational attainment affects the income potential of individuals and of society.

Proxy measures for this potential are licences and degrees issued, and levels and types of education completed. For the potential to be realized, these certifications have to find their reward in the market place. Over the decade, Bachelor's and Master's degrees awarded have increased, but with the rates varying considerably by field of specialization.

There is some evidence from benefit-cost calculation that the individual's return from investment in additional education has declined from 1961 to 1967.[3] This may imply that the economic reward for skills derived from education has declined.

Adult upgrading and retraining, which in large part is covered by a major federal government program, is designed to increase the employability and potential earning abilities of those finding it difficult to compete in the labour market and thus to actively participate in the economy. The program assists over 300,000 people annually at a cost to the federal government of some $300 million.

LIMITATIONS OF THE DATA

The available statistics have a number of limitations. Derived chiefly as by-products from public administration records of provincial and local authorities, the statistics illustrate trends in the "stock" of students, i.e. the total number of students at a particular time in different sectors of the education system. Frequently they also lack comparability from province to province in terms of consistency, definitions, and institutional arrangements.

Present data do not permit monitoring what is being learned by the student as he progresses through the system, thereby concealing whether students are more educated or have simply participated in the system longer. In the United States, the National Assessment of Educational Progress regularly undertakes a nationwide program to test literacy, mathematics and reading skills of different age groups; there is in Canada at the present time no similar national program.

Data on the cognitive skills of students across Canada are needed, together with statistics on the individual's attitudes to school and work, and on his educational and occupational aspirations.

TRANSMISSION OF MINORITY CULTURES

Not many statistics on the mechanism by which minority cultural values are generally transmitted exist, but there are a few data on how this process is carried out by the education system. One measure is the changing enrolments in the Yukon and Northwest Territories, where the majority population group is comprised of Inuit, Indians and Métis. At the beginning of the decade over half the children were enrolled in federal schools taught in English by English-speaking teachers. By 1969 all pupils were being enrolled in territorially controlled public schools where, increasingly, native curricular materials are taught in the native languages. The number of private nursery schools and kindergartens sponsored by various cultural groups which offer programs in their relevant language of communication, using related curricular materials, is also evidence of this transmission process.

EQUALITY OF OPPORTUNITY

It has long been held that the larger the proportion of the people acquiring basic and advanced education, the greater will be the equality of opportunity. However, recent evidence suggests that schooling as a means of increasing equality may be overrated.[4] As was mentioned earlier, educational opportunity itself is distributed unequally, and access to higher learning continues to be unequal for males and females, particularly in professions traditionally reserved for males.

Differential access to post-secondary education is indicated by the high proportion of students whose parental incomes are high. As well, one finds an over-representation of post-secondary students with fathers in professional and managerial occupations. In addition, there is evidence that the mother's educational attainment influences the level of schooling in the next generation.

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[3]Economic Council of Canada, *Eighth Annual Review* (Ottawa: Queen's Printer, 1971), Chapter 9. See also Concepts and Definitions, Rates of Return.

[4]Christopher Jencks, *Inequality: A Reassessment of the Effect of Family and Schooling in America* (New York: Basic Books, 1972).

OTHER SELECTED DATA

Although the emphasis in this and other chapters has been on so-called output measures, input data should not be entirely ignored. They both aid in the evaluation of the efficiency with which output is produced and serve as an indicator of the priority with which society regards certain goal areas. Many input measures exist in education and a few of the more relevant ones have been included here.

Because of the importance of teachers in the learning process, it is desirable to develop indicators to gauge their effectiveness. Unfortunately, many determinants of good teaching are difficult to quantify. As a result, traditionally used measures of teaching quality have been statistics on academic qualifications of teachers, and student-teacher ratios, although these are now in question. Evidence suggests that performance of students improves with increased qualifications of their teachers, but these are of less importance than socio-economic status of students.

CONCEPTS AND DEFINITIONS

EDUCATION JURISDICTION

Under the British North America Act, Section 93, the provinces are responsible for the education of all persons. Exceptions to the above are federally sponsored schools for Indian students and children of servicemen in Europe. The federal government helps finance post-secondary education in the provinces, participates in informal education, and makes grants-in-aid for research personnel and equipment.

Responsibility for education in the Northwest Territories was moved from the federal Department of Indian and Northern Affairs to the new N.W.T. Department of Education; the official transfer occurred in the Mackenzie District in April 1969 and in the Franklin and Keewatin Districts in April 1970. The majority of schools in the Yukon have always been classified as public and have been administered directly by the Yukon Department of Education in Whitehorse.

COMMUNITY COLLEGES AND CEGEPs

"Community college" is a generic term encompassing all post-secondary non-degree-granting institutions, chiefly provincially supported. The basic programs are (1) technical, and (2) university transfer programs. The latter permit the student to transfer to a university and gain credit for work completed in the college. Five provinces do **not** have university transfer courses.

In Quebec, the *Collèges d'enseignement général et professionnel,* called CEGEPs, which offer three-year technical studies and two-year academic programs, were inaugurated in the mid-1960s. Unlike the university transfer programs in other provinces, the Quebec CEGEP academic programs are prerequisites for entrance to universities in Quebec.

PRE-GRADE I EDUCATION

Public pre-Grade I education is administered within the public elementary schools in provinces that have legislated for these extended structures.

Newfoundland, Nova Scotia, Quebec, Ontario, Manitoba, Saskatchewan and British Columbia offer kindergarten education to five-year-olds. However, it should be noted that these services are found mostly in the larger urban centres. Throughout Canada there are an increasing number of nursery schools and kindergartens which are privately operated for children from three to five years of age.

THE 1971 STUDENT CENSUS

The Student Census, conducted by Statistics Canada, was designed to complement the main 1971 Census. It yielded information on the social characteristics of the student population in 20 metropolitan areas in Canada classified by grade, school, school board, and province. Student characteristics include: sex, age, mother tongue, language facility, size of family, mass media utilization, part-time work, and geographic mobility.

RATES OF RETURN

The internal rates of return represent the discount rates at which the present values of calculated benefits equal the present value of costs. The underlying assumption of these measures are that the costs to individuals in acquiring additional education is a kind of investment. The returns on this investment are the higher earnings made possible by further education. To calculate these returns one must estimate the cost to the individual by imputing the direct expenditures (fees, books, travel, and other "out of pocket costs") and the indirect costs such as forgone earnings. The benefits are estimates of the stream of additional earnings that can be accounted for by the additional education during the individual's working life.

The internal rates of return in the chart can be interpreted as the value of the investment in education to the individual. The higher the rates of return the better.

However, whether the benefits in relationship to the costs are worthwhile, is a matter of subjective evaluation. If the individual views education in terms of potential earning, these calculations are of importance. If, on the other hand, education is considered as enjoyment and the benefits are perceived as cultural or self-developmental attributes, then these calculations are not relevant to the individual.

Table 4.1
EDUCATIONAL ATTAINMENT OF POPULATION 14 YEARS OF AGE AND OVER

	Population	ELEMENTARY		SECONDARY		UNIVERSITY	
		Not complete[1]	Complete	Some	Complete	Some	Complete
	thousands	per cent					
1960	11,699	24.1	23.6	31.3	14.1	3.8	3.1
1965	12,930	20.4	20.5	35.3	15.2	5.0	3.6
1966	13,305	19.5	18.3	36.4	16.1	5.7	4.0
1967	13,717	17.5	18.3	35.8	17.9	5.4	4.0
1969	14,470	16.8	15.4	36.2	18.9	6.9	4.8
1972	15,673	29.4		35.0	29.7		5.9

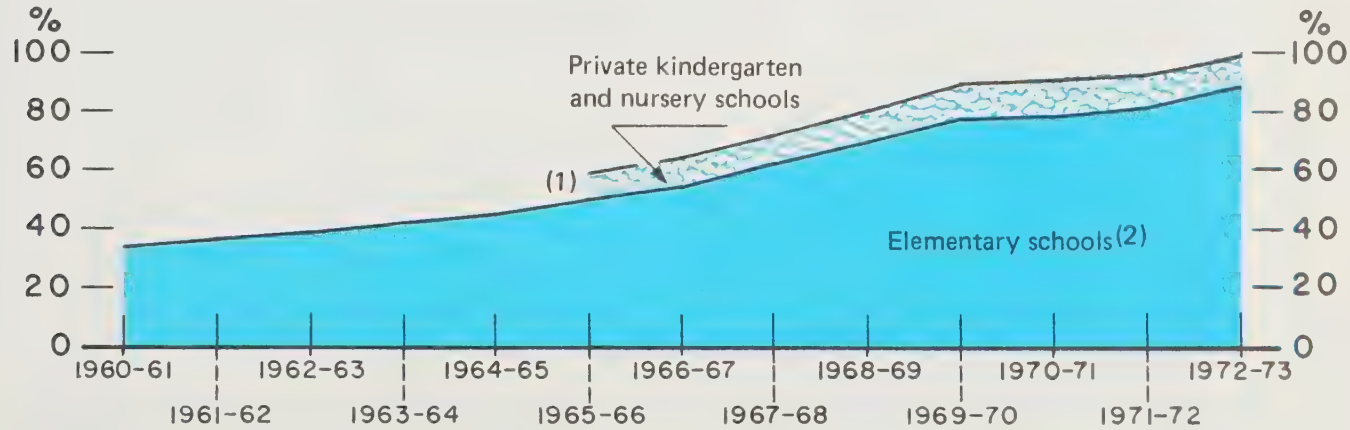
1) Includes no schooling.

Table 4.2
ENROLMENTS IN SCHOOLS AT THE ELEMENTARY-SECONDARY LEVEL

	1960	1962	1964	1966	1968	1970	1972
	thousands						
Public schools	3,989	4,373	4,744	5,076	5,455	5,650	5,582
Federal schools	44	45	46	47	46	34	34
Private schools	168	191	204	189	146	145	152
Private kindergartens and nursery schools[1]	..	..	..	40	47	52	45
TOTALS	4,201	4,609	4,994	5,352	5,694	5,881	5,813

1) Private kindergarten and nursery school enrolments in Quebec and Saskatchewan are estimates.

Chart 4.3
TOTAL PRE-GRADE I ENROLMENT RELATED TO 5-YEAR OLD POPULATION



(1) Data not available for earlier years.
(2) Includes public kindergartens and nursery schools.

Table 4.4
PERCENTAGE OF THE POPULATION AGED 15 to 17 YEARS ATTENDING SCHOOL[1]

	1961		1966		1971	
	Male	Female	Male	Female	Male	Female
	per cent					
Newfoundland:						
15 years	95.2	96.1	87.2	89.4	93.0	92.0
16 "	72.9	64.6	78.4	71.6	75.6	73.6
17 "	39.7	30.4	46.9	35.7	45.9	40.1
Prince Edward Island:						
15 years	84.5	102.1	85.8	93.0	88.3	96.3
16 "	67.3	80.9	66.8	78.4	82.1	88.7
17 "	44.6	47.9	54.1	60.9	59.2	60.4
Nova Scotia:						
15 years	92.2	94.8	94.1	93.5	91.7	93.4
16 "	68.5	70.2	78.9	82.0	79.6	81.9
17 "	46.4	41.6	56.2	57.2	60.2	60.2
New Brunswick:						
15 years	88.9	89.5	89.5	90.6	92.2	92.7
16 "	62.2	63.7	74.9	78.6	82.9	82.9
17 "	48.7	42.7	58.2	57.3	63.4	58.2
Quebec:						
15 years	77.9	68.9	87.1	84.9	..	..
16 "	53.9	40.7	71.2	64.1	..	..
17 "	29.0	14.2	46.6	34.7	..	..
Ontario:						
15 years	90.8	90.7	99.3	99.1	99.5	98.2
16 "	75.9	75.3	90.5	89.1	91.3	89.8
17 "	61.8	54.7	72.6	65.3	79.8	73.8
Manitoba:						
15 years	94.3	95.0	97.9	96.8	94.3	96.7
16 "	75.2	74.6	88.2	86.4	88.2	89.2
17 "	59.2	46.8	67.3	60.5	66.7	63.3
Saskatchewan:						
15 years	92.1	97.3	97.5	97.5	94.0	95.7
16 "	79.5	80.6	88.2	88.4	85.8	87.6
17 "	61.5	57.6	68.6	64.5	63.4	60.4
Alberta:						
15 years	93.1	96.0	94.4	95.6	96.1	96.4
16 "	80.9	81.1	87.4	87.8	88.1	89.8
17 "	63.8	57.4	66.8	60.7	68.8	62.3
British Columbia:						
15 years	112.4	115.7	106.1	104.9	95.1	96.0
16 "	97.2	95.9	99.0	99.5	88.9	87.6
17 "	84.2	82.7	90.1	86.3	64.0	57.5
CANADA:[2]						
15 years	88.9	86.9	94.6	93.9	96.7	96.6
16 "	69.9	65.1	83.3	80.6	88.3	87.8
17 "	50.8	41.4	63.1	55.3	71.1	65.8

1) Elementary and secondary levels of public, private and federal schools.
2) Excluding Quebec for 1971.
Note: In relating enrolment figures to population data, percentages over 100% are shown, suggesting that there are more pupils in school than there are in the population. This anomaly occurs mainly because the data for pupils and the figures for population are derived from different sources, the former being school enrolment data and the latter Census of Canada figures.

Table 4.5
CHILDREN RECEIVING SPECIAL EDUCATION, 1966

Reason for special education	Male	Female
Gifted	4,276	4,230
Retarded readers	8,098	4,010
Mentally retarded[1]	18,869	12,018
Emotionally disturbed	1,788	1,014
Visual handicap	656	445
Hearing handicap	2,041	1,737
Speech defect	17,815	10,031
Orthopaedic cases	642	513
Cerebral palsy	722	617
Special health problems	939	757
Neurologically impaired	627	273
Double handicap	1,382	668
Triple handicap	331	220

1) Distribution by sex is estimated.

Table 4.6
ENROLMENT IN SECOND-LANGUAGE STUDY

	Proportion studying second language
	per cent
Quebec: students studying English:[1]	
Kindergarten — Grade 7:	
1970-71	35.8
1971-72	35.5
1972-73	33.4
Grades 8 - 12:	
1970-71	99.9
1971-72	100.0
1972-73	100.0
All other provinces: students studying French:[2]	
Elementary:	
1970-71	29.2
1971-72	30.8
1972-73	33.3
Secondary:	
1970-71	55.7
1971-72	53.2
1972-73	47.0

1) This is the number of students enrolled in courses in English as a second language, expressed as a percentage of the number of students who use French as their language of instruction (i.e., the language in which non-language courses are presented).
2) This is the number of students enrolled in courses in French as a second language, expressed as a percentage of the number of students who use English as their language of instruction (i.e., the language in which non-language courses are presented).

Table 4.7
STUDENTS' FACILITY IN BOTH OFFICIAL LANGUAGES, 1971[1]

	GRADES									
	6	7	8	9	10	11	12	13	Multi-grade[2]	All grades
	per cent									
Newfoundland	6.8	1.7	2.1	4.4	1.8	2.3	–	–	–	3.1
Nova Scotia	1.4	2.2	3.6	5.0	6.5	10.5	13.7	–	6.5	4.7
New Brunswick	5.3	6.3	5.1	5.4	5.8	7.3	9.8	–	6.0	6.1
Quebec	16.3	25.0	25.2	25.4	31.4	41.9	49.5	–	29.0	28.9
Ontario	5.5	8.9	9.6	12.7	14.9	18.6	21.1	31.1	12.1	12.5
Manitoba	6.9	8.2	8.8	8.1	10.5	13.5	11.4	–	10.1	9.1
Saskatchewan	1.2	2.5	3.4	2.8	5.7	4.7	8.5	–	5.5	3.8
Alberta	3.7	4.5	5.0	5.7	11.0	13.4	15.3	–	9.2	6.8
British Columbia	2.0	1.9	6.2	7.3	8.7	12.4	12.9	–	8.2	6.6
CANADA[3]	5.3	9.3	9.6	11.7	15.4	20.3	19.9	30.9	14.3	12.3

1) The data used in this table are from the 1971 Student Census Project which includes Grades 6 to 13 in all classrooms in centres of 100,000 population and more in Canada. Each student made a value judgment of his ability when answering the survey question, "Can you speak English or French well enough to conduct a conversation?"
2) If a classroom comprised more than one grade, the results were tabulated under the category multi-grade.
3) Excludes Prince Edward Island.

Table 4.8
REGISTRATIONS IN CONTINUING EDUCATION PROGRAMS[1]

	1970-71		1971-72	
	Total	Percentage male	Total	Percentage male
School boards/department of education:				
Academic	260,903	54.1	222,615	50.1
Vocational	163,495	54.7	141,480	55.1
Hobby skills	222,474	15.2	243,481	85.7
Liberal arts	36,181	38.3	38,487	62.1
Social education	57,250	43.5	77,826	58.5
Recreational	38,064	38.0	43,038	66.9
Driver education and related	16,936	31.6	21,533	54.5
Provincial correspondence schools:				
Academic	84,490	8.1	93,106	44.5
Vocational and other	32,884	6.3	31,012	87.2
Provincial vocational schools:				
Academic upgrading	61,727	66.8	71,247	37.6
Occupational training	23,573	14.6	25,764	72.7
TOTALS	997,977	37.7	1,009,589	61.6

1) Includes enrolment in both day and evening programs.

Chart 4.9
REGISTRATIONS IN CONTINUING EDUCATION PROGRAMS, BY SEX, 1971-72

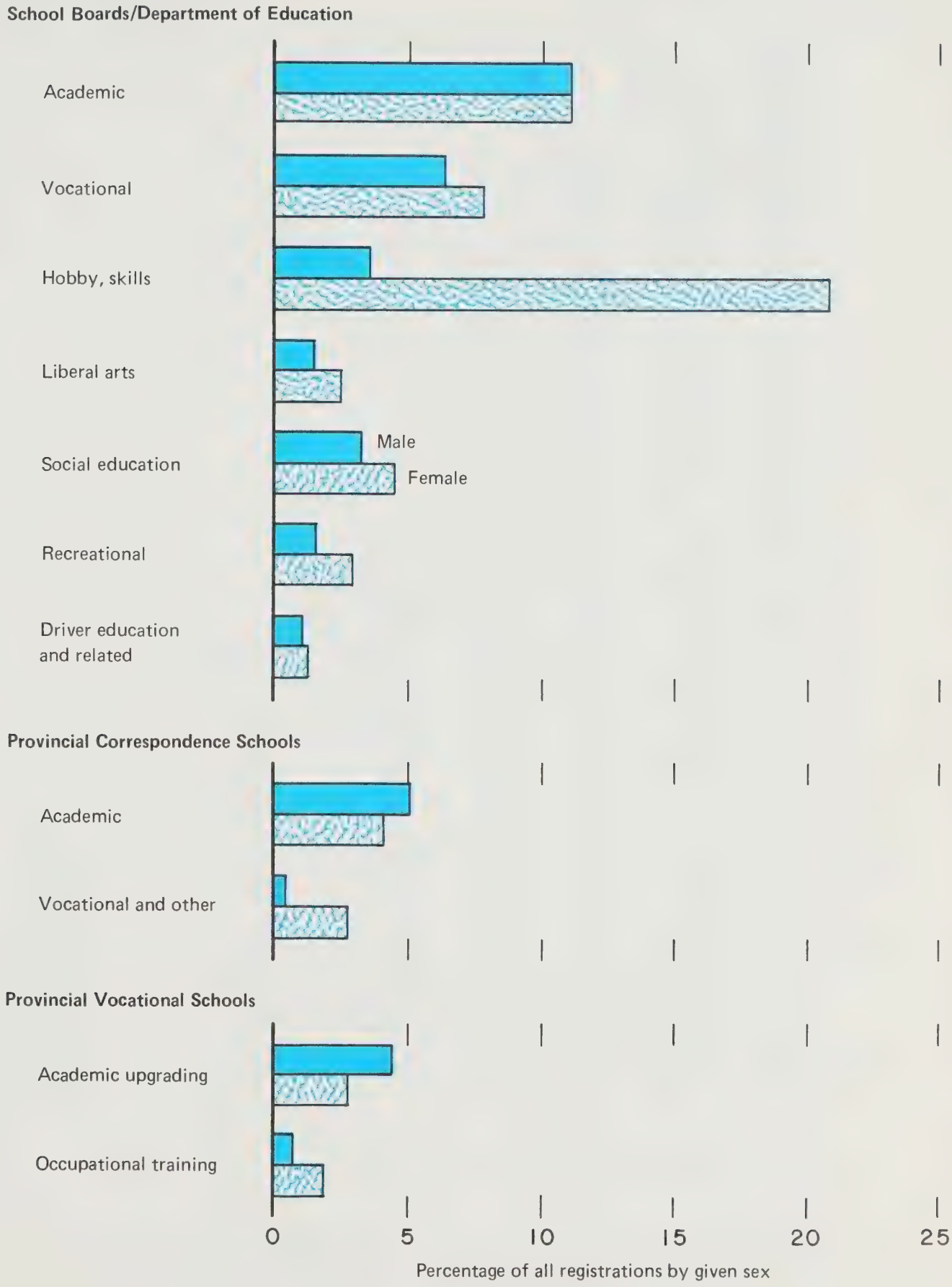
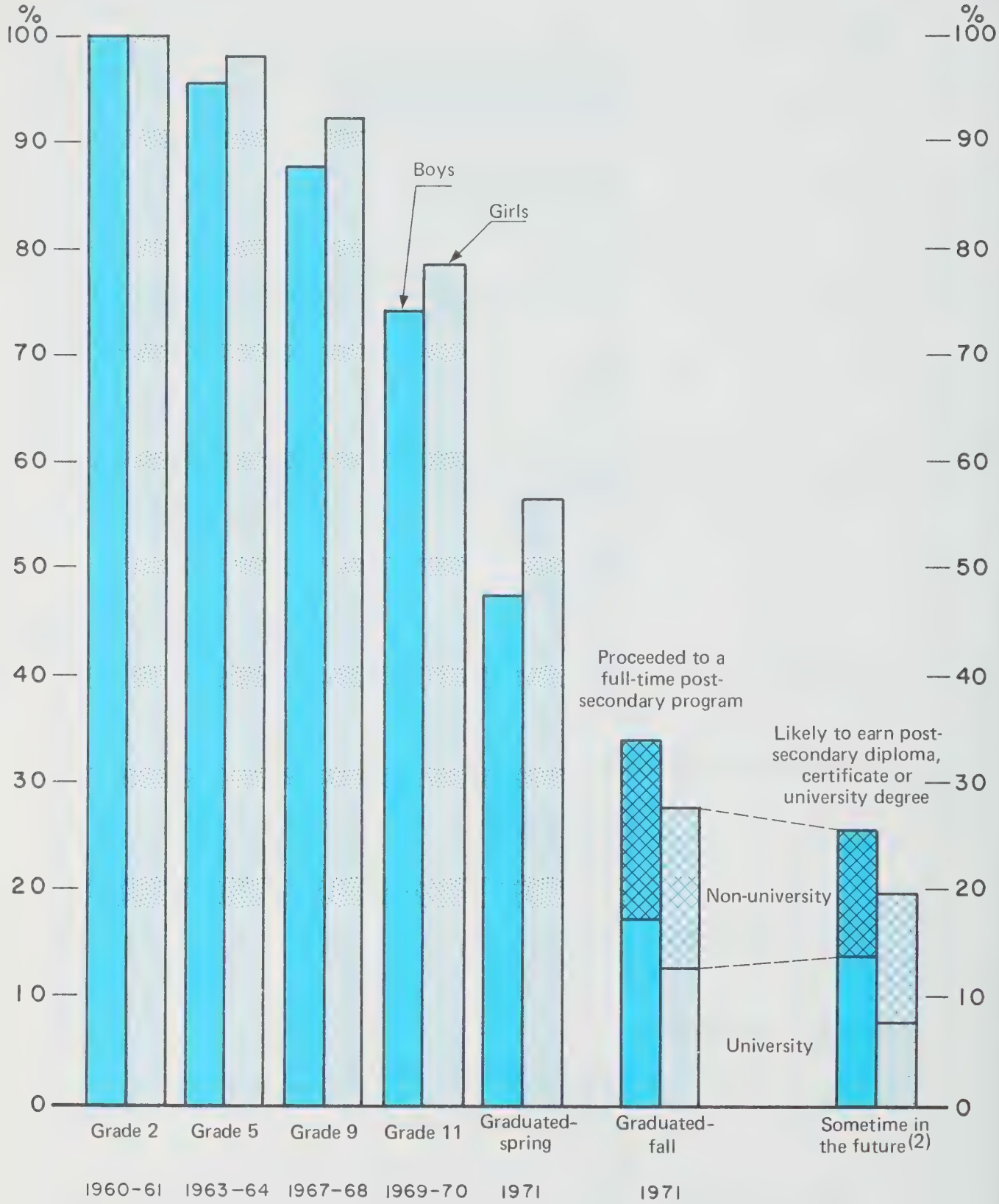
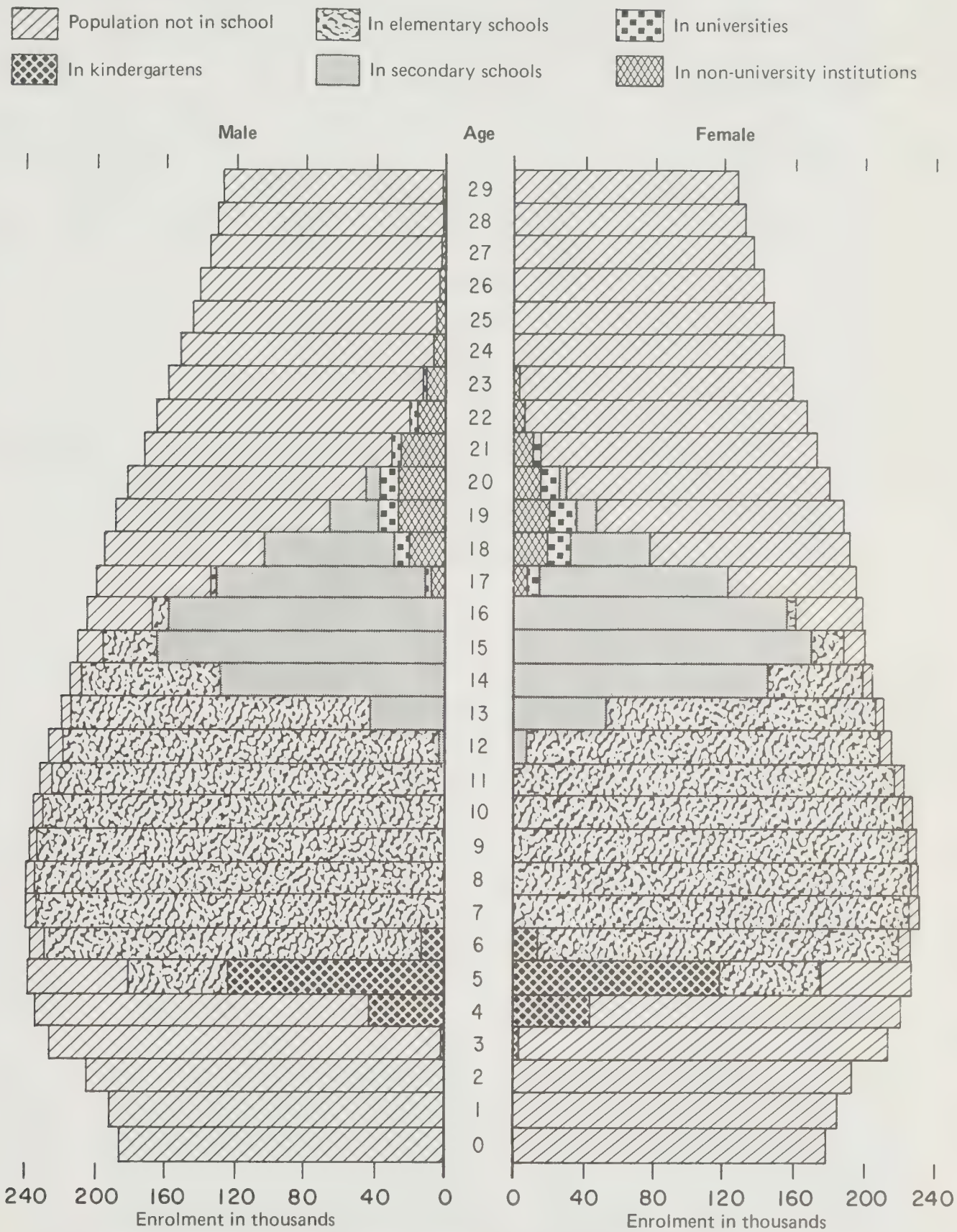


Chart 4.10
ESTIMATED STUDENT RETENTION(1)



(1) Retention rate is defined as the relationship of enrolment to a particular point of time in the educational system. This rate, expressed as a percentage, shows what proportion of grade two pupils reach grade six, twelve, or post-secondary graduation.
(2) Through pursuit of either full-time or part-time studies.

Chart 4.11
POPULATION ENROLLED IN SCHOOLS,(1) 1968-69



(1) Full-time only, but excludes pupils in schools for the handicapped, and students in trade schools and apprenticeship programs, and includes those in private nurseries and kindergartens.

Table 4.12
POST-SECONDARY ENROLMENT

	1962-63	1964-65	1966-67	1968-69	1970-71	1971-72
Full-time enrolment:						
Non-university:[1]						
Career	55,216	65,179	77,527	101,658	117,478	118,946
University transfer[2]	388	833	2,676	27,870	48,601	54,833
Universities and colleges:[3]						
University level	141,000	177,405	229,996	265,500	308,135	314,664
Non-university level	117	194	341	343	1,334	8,362[4]
TOTALS	196,721	243,611	310,540	395,371	475,548	496,805
Part-time enrolment:[5]						
Undergraduate	38,697	56,556	75,703	93,617	154,356	142,171
Graduate	5,351	7,268	10,111	10,484	14,370	18,029
TOTALS	44,048	63,824	85,814	104,101	168,726	160,200

1) Includes community colleges, teachers' colleges, hospital and regional schools of nursing, institutes of technology, CEGEPs. In 1970-71 enrolments in community colleges and CEGEPs constituted almost 85% of the total non-university.
2) Academic students at CEGEPs and community colleges.
3) Degree-granting institutions and affiliated colleges.
4) In 1971-72 Ryerson Polytechnical Institute became a degree-granting institution, but the bulk of their students were still at the non-university level and are included in this figure.
5) Includes students taking non-credit extension courses (except in 1971-72), and students in university transfer courses in community colleges. CEGEP academic enrolment included only for 1970-71.

Table 4.13
FULL-TIME ENROLMENT IN COMMUNITY COLLEGES

	TECHNICAL PROGRAMS[1]		UNIVERSITY TRANSFER PROGRAMS	
	1970-71	1971-72	1970-71	1971-72
Newfoundland	705	848	–	–
Prince Edward Island	175	391	–	–
Nova Scotia	837	934	194	164
New Brunswick	616	702	–	–
Quebec	29,727	36,147	40,658[2]	46,542[2]
Ontario	37,483	37,981	–	–
Manitoba	2,084	2,555	–	–
Saskatchewan	1,722	2,026	31	67
Alberta	7,359	8,577	2,309	2,268
British Columbia	4,981	5,707	5,394	5,785
CANADA	85,689	95,868	48,586	54,826

1) The technical programs subsume the technical, health, business and applied arts programs.
2) Unlike the community colleges in other provinces, the academic programs (university transfer) in the CEGEPs are prerequisites for entrance to universities in Quebec.

Table 4.14
WOMEN AS A PERCENTAGE OF TOTAL POST-SECONDARY ENROLMENT

	1960-61	1962-63	1964-65	1966-67	1968-69	1970-71	1971-72
				per cent			
Full-time enrolment:							
Non-university level[1]	70.8	69.7	63.3	55.8	52.0	49.4	48.1
University level[2]	24.3	27.0	29.7	32.5	34.2	35.9	36.2
Undergraduate[3]	24.8	27.8	30.8	33.8	35.7	37.3	38.2
Graduate	15.1	15.1	16.8	18.0	18.6	22.3	22.6
TOTAL POST-SECONDARY	38.3	39.1	38.8	38.3	38.8	39.3	39.7
Part-time enrolment:[4]							
Undergraduate	..	41.2	40.7	43.0	43.0	44.0	47.7[5]
Graduate	..	17.1	19.1	22.9	21.8	23.7	24.1
TOTAL UNIVERSITY	..	38.3	38.3	40.6	40.8	42.3	45.0[5]

1) Includes students in post-secondary non-university level programs, regardless of type of institution attended, predominantly community colleges and CEGEPs.
2) Includes students in programs at the university level, regardless of type of institution attended, including community colleges and CEGEPs.
3) Includes students in university transfer, CEGEP academic.
4) Includes some students taking non-credit extension courses and students enrolled in university transfer courses given in community colleges. CEGEP academic enrolment included only for 1970-71.
5) Excludes students taking non-credit courses, includes estimates.

Chart 4.15
UNIVERSITY ENROLMENT BY SEX

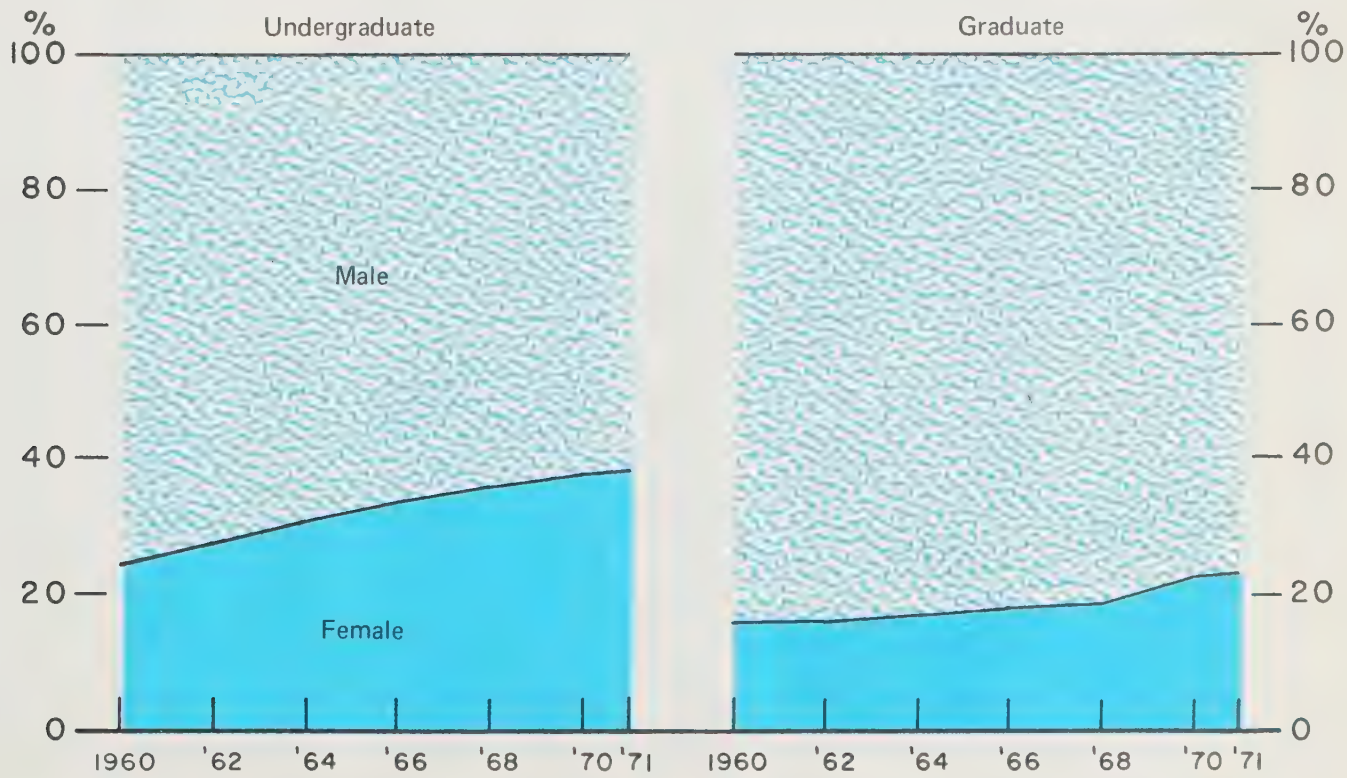


Table 4.16
FULL-TIME UNIVERSITY UNDERGRADUATES BY FIELD OF SPECIALIZATION

	1960	1962	1964	1966	1968	1970	1971
Arts	42,670	55,628	69,404	94,142	114,288	135,711	128,008
Pure science	9,795	14,439	21,198	28,564	42,549	53,522	63,594
Agriculture and forestry	2,572	2,816	3,261	3,692	4,101	4,499	4,362
Environmental design[1]	753	747	933	1,174	1,543	2,447	2,592
Commerce[2]	6,544	7,655	9,471	11,880	16,410	19,908	22,053
Education	11,587	15,875	20,399	26,952	29,314	39,251	38,514
Engineering and applied science	14,632	14,369	15,276	18,498	22,173	22,859	21,377
Fine and applied arts, and music	488	719	995	1,629	3,297	8,130	6,252
Law	2,480	2,892	3,520	4,464	5,735	7,260	7,770
Medicine	4,244	4,306	4,635	4,795	5,245	7,931	6,403
Dentistry, pharmacy and nursing	4,196	5,011	5,914	6,575	7,287	8,825	9,017
Other health professions[3]	1,062	1,336	1,569	1,720	2,178	2,954	11,237[5]
Social work	618	539	572	757	1,368	2,204	2,248
Theology	3,306	3,042	3,076	2,754	2,295	2,675	2,288
Other[4]	2,399	3,578	4,218	5,357	9,467	5,388	7,874
TOTALS	107,346	132,952	164,441	212,953	267,250	323,564	333,589

1) Includes architecture, community, regional and urban planning, environmental studies, and landscape architecture.
2) Includes business administration.
3) Includes audiology, speech pathology, chiropractic, optometry, physiotherapy, veterinary medicine, and miscellaneous health professions.
4) Includes journalism, library science, secretarial science, household science, and unclassified.
5) In 1970 there were 5,158 students classified (excluding private colleges) in arts and science, who were reclassified in 1971.

Chart 4.17
SPECIALIZATIONS OF UNDERGRADUATES

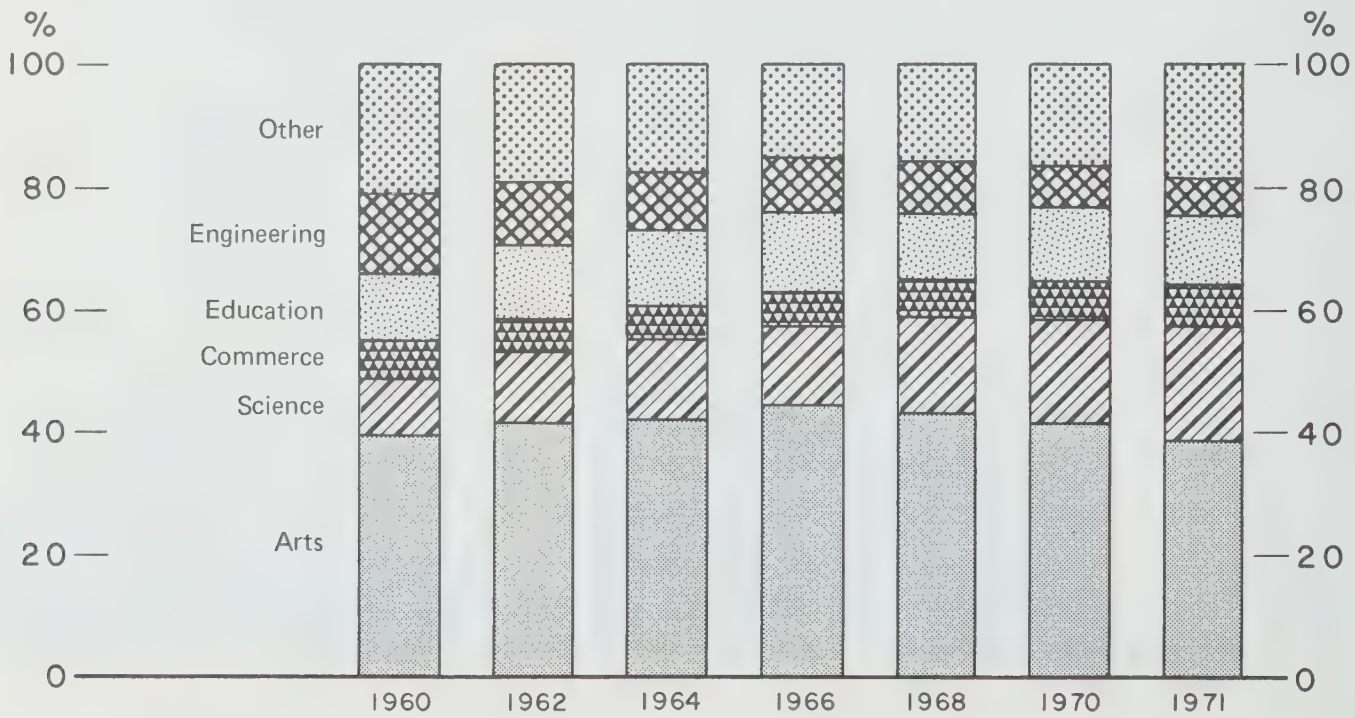


Table 4.18
FULL-TIME POST-SECONDARY ENROLMENT (NON-UNIVERSITY) BY FIELD OF SPECIALIZATION

	1960-61	1962-63	1964-65	1966-67	1968-69	1970-71	1971-72
Applied arts	687	608	2,923	3,201	6,351	9,590	11,966
Business and commercial	656	1,218	2,712	5,197	14,762	27,004	31,446
Nursing R.N. diploma	20,727	22,630	23,405	23,931	25,100	26,545	26,034
Teacher training	19,109	21,032	21,863	23,129	23,625	10,848[1]	5,684
Technologies:							
Architectural	574	862	446	681	1,240	1,187	1,489
Engineering	5,637	7,738	12,295	15,899	17,243	19,610	26,978
Food	121	180	120	239	368	123	725
Medical and dental	—	66	403	1,869	3,256	3,608	4,146
Natural resources	—	209	670	1,280	2,695	4,808	5,110
Social welfare and recreation	—	—	25	862	2,318	5,289	6,417
Miscellaneous or not classified	1,768	790	511	1,580	5,043	10,200	7,313
TOTALS	49,279	55,333	65,373	77,868	102,001	118,812[2]	127,308

1) The trend since 1970 has been to phase out teachers' colleges, which at one time (along with nursing education in hospitals) was a principal post-secondary non-university institution. Professional teacher training is now obtained at universities.
2) By 1970, almost all post-secondary non-university enrolments were taken in community colleges and CEGEPs, other than nursing enrolments.

Chart 4.19
FULL-TIME POST-SECONDARY ENROLMENT (NON-UNIVERSITY) BY FIELD OF SPECIALIZATION

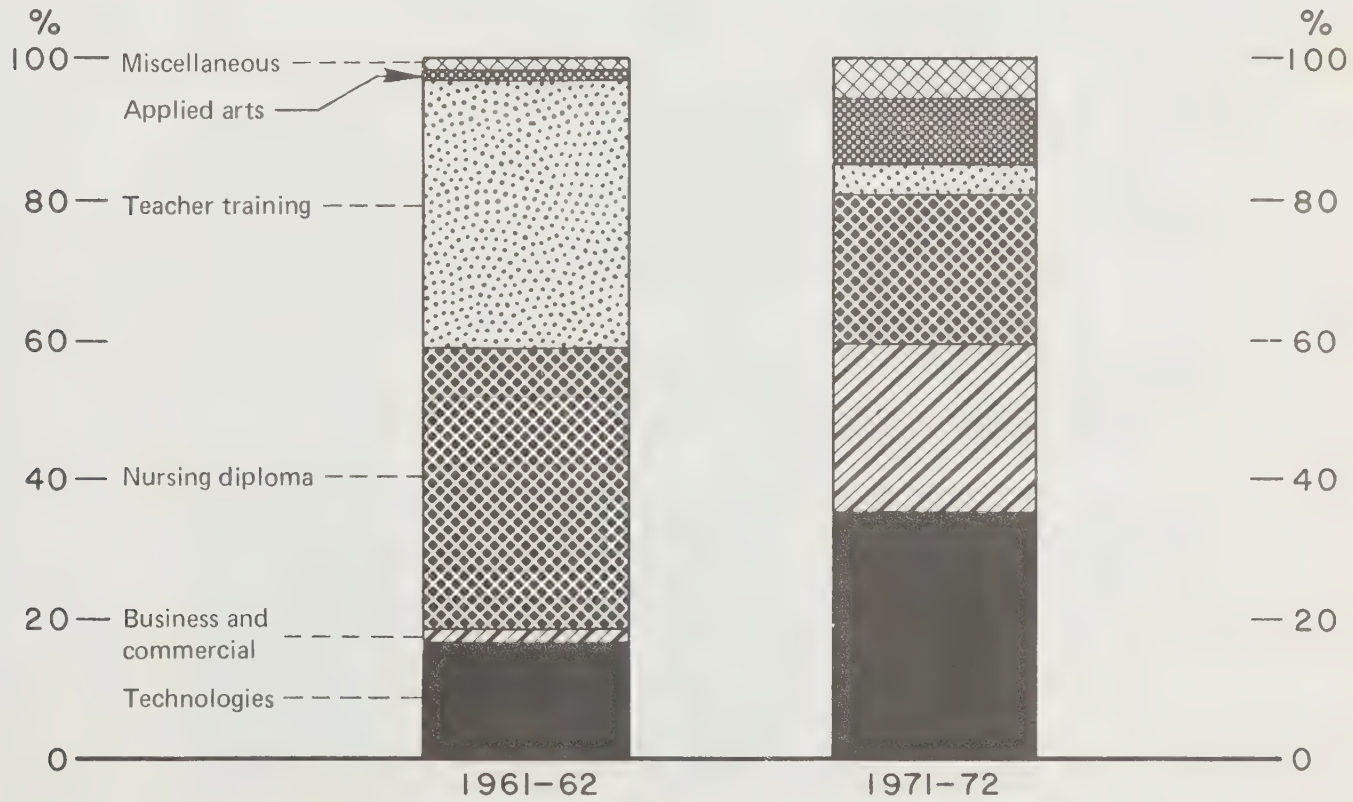


Table 4.20
NON-CREDIT CONTINUING EDUCATION IN UNIVERSITIES AND COMMUNITY COLLEGES, 1971-72

	UNIVERSITIES			COMMUNITY COLLEGES			
	Professional development[1]	General interest	Association diploma[1]	Professional development[1]	General interest	Association diploma[1]	Total
Newfoundland	284	1,685	617	3,126	207	–	5,919
Prince Edward Island	188	206	38	333	109	–	874
Nova Scotia	2,554	1,182	359	228	58	–	4,381
New Brunswick	505	1,860	114	–	–	–	2,479
Quebec	9,261	7,997	9,950	2,890	2,530	170	32,798
Ontario	26,207	11,597	10,248	12,935	33,438	21	94,446
Manitoba	2,502	1,488	2,412	4,646	1,954	36	13,038
Saskatchewan	4,637	3,944	1,120	1,456	122	–	11,279
Alberta	8,318	11,155	3,136	8,968	6,232	92	37,901
British Columbia	12,128	11,149	9,241	3,663	10,022	–	46,203
CANADA	66,584	52,263	37,235	38,245	54,672	319	249,318

1) The professional development category in continuing education refers to refresher or development courses of special interest to members of the professional and business community. Association diploma courses conducted through or by the universities can be applied toward a diploma awarded by a specific professional association.

Chart 4.21
NON-CREDIT CONTINUING EDUCATION IN UNIVERSITIES AND COMMUNITY COLLEGES, 1971-72

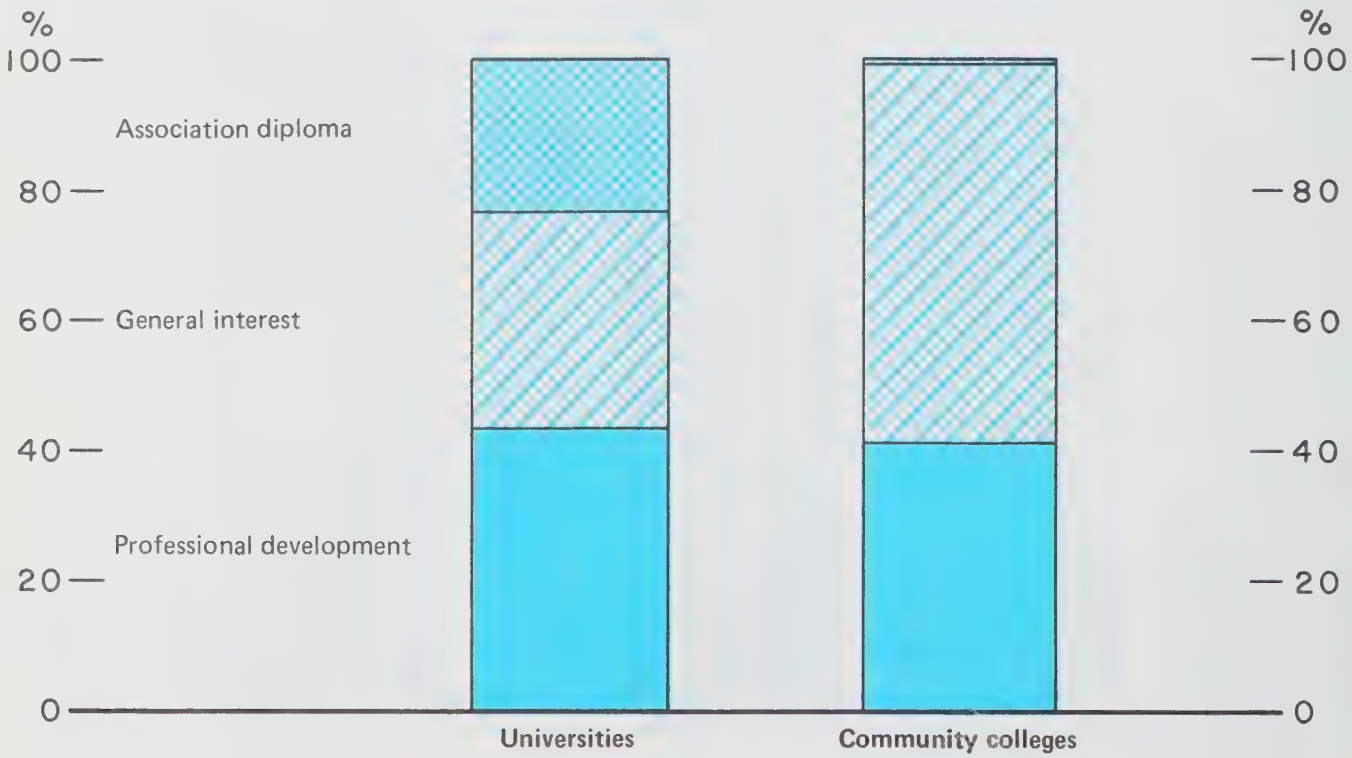


Chart 4.22
PERCENTAGE DISTRIBUTION OF INDIVIDUALS BY INCOME GROUPS AND EDUCATION, 1971

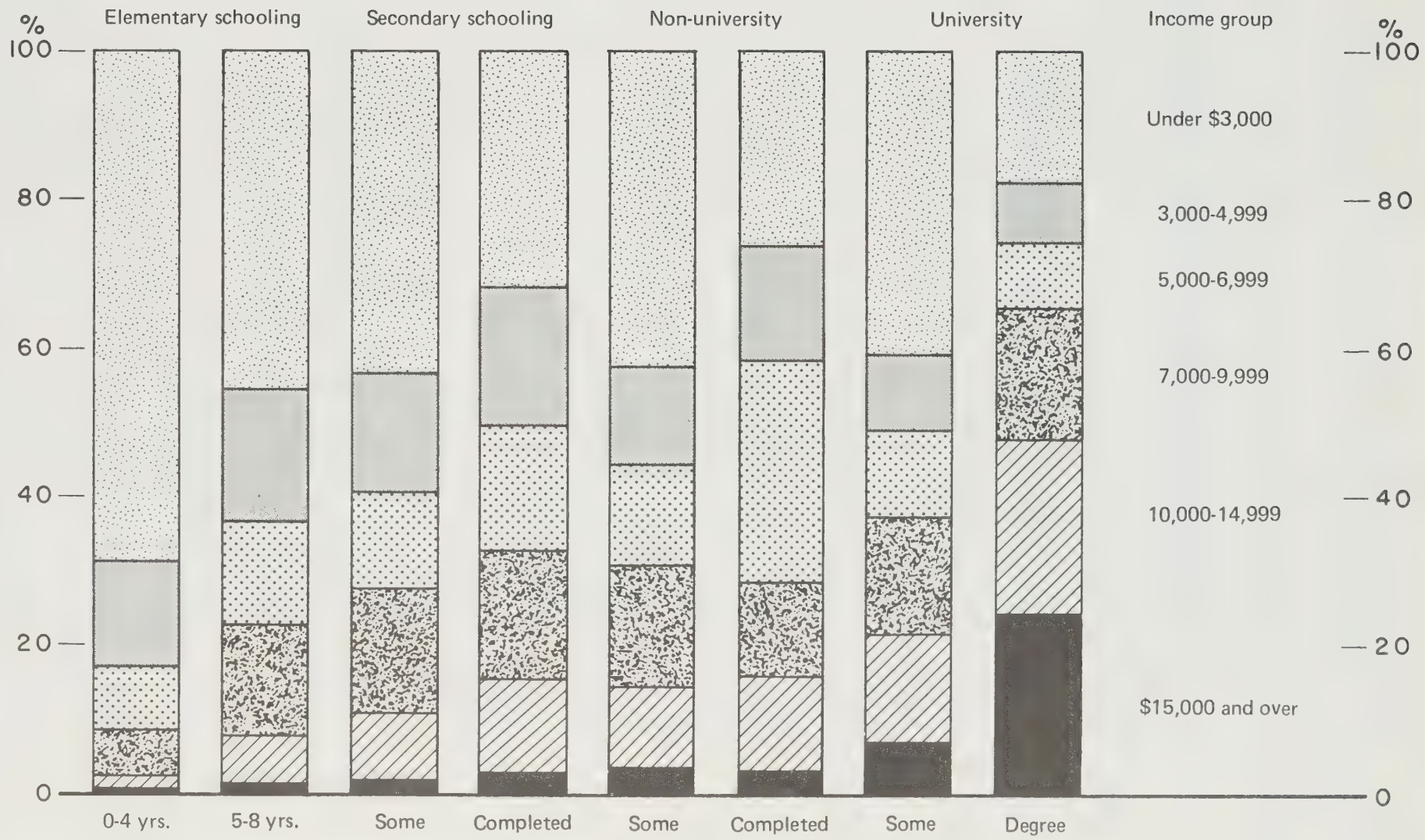
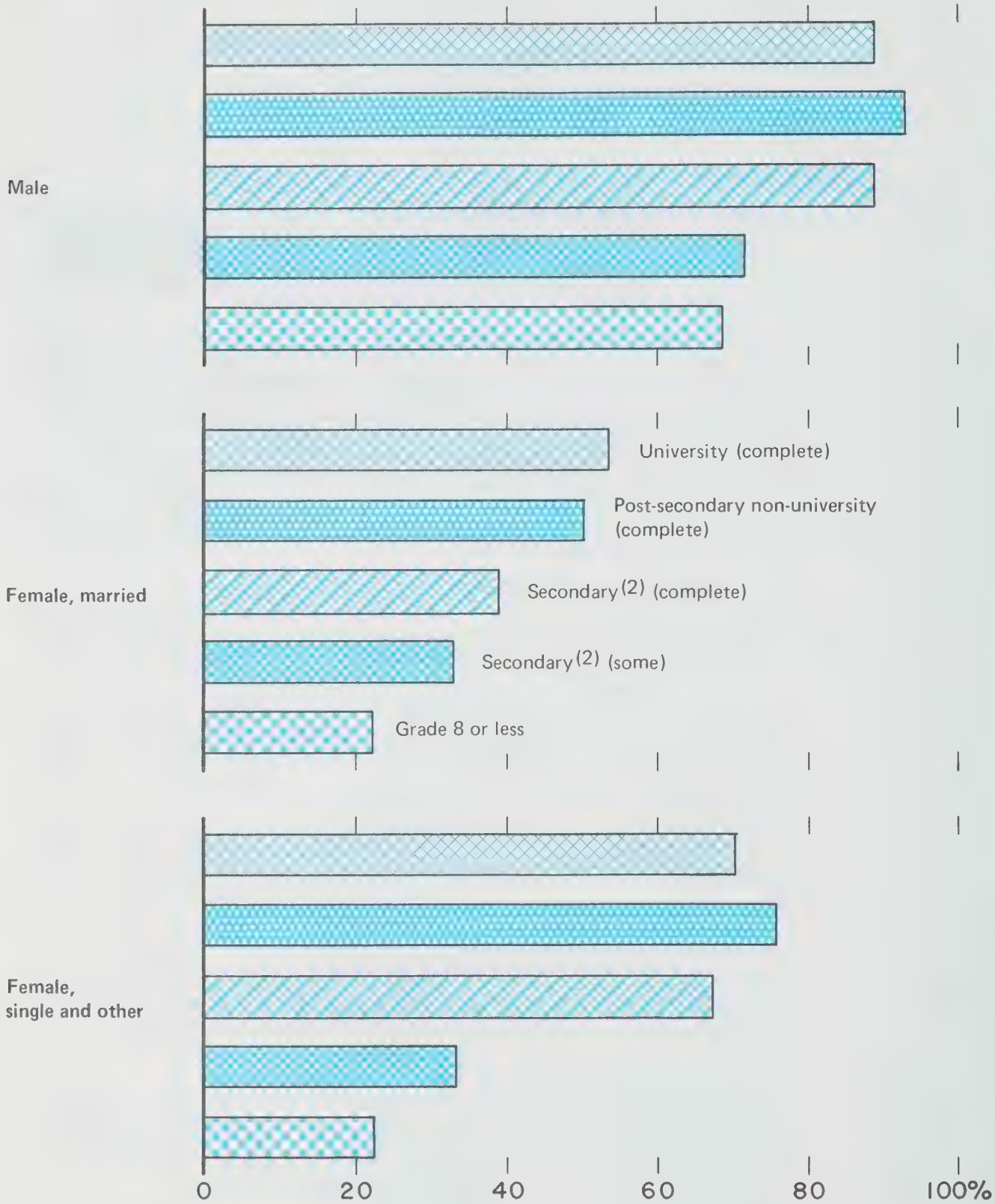


Chart 4.23
LABOUR FORCE PARTICIPATION RATES BY EDUCATION ATTAINED, APRIL 1972(1)



(1) A labour force participation rate is defined as the percentage of the population 14 years of age and over in the labour force.
(2) Grade 9 to end of secondary.

Table 4.24
DEGREES AWARDED BY UNIVERSITIES AND COLLEGES, BY FIELD OF STUDY

	1960-61	1962-63	1964-65	1966-67	1968-69	1970-71	1971-72
Masters' degrees:							
Agricultural and biological science	147	192	239	347	376	552	544
Education	227	338	390	525	902	1,421	1,721
Engineering	243	295	445	550	932	1,175	1,026
Health professions	83	108	154	227	246	277	292
Humanities	466	536	699	1,133	1,484	2,084	2,359
Mathematics and physics	282	344	402	613	693	949	957
Social sciences	779	942	1,252	1,870	2,402	3,180	3,359
TOTALS	2,227	2,755	3,581	5,265	7,035	9,638	10,258
Total masters' degrees as a percentage of population age 22	1.0	1.2	1.4	1.8	2.1	2.6	2.8
Bachelors' degrees:							
Arts and sciences	9,301	12,731	17,513	24,774	31,717	35,079	38,494
Agriculture	311	357	443	508	537	573	617
Commerce	1,151	1,238	1,678	1,870	2,386	3,345	3,656
Education	2,885	4,261	5,917	7,767	10,066	15,209	16,019
Engineering	2,603	2,402	2,491	2,664	3,306	4,410	4,539
Law	700	623	740	1,093	1,322	1,949	2,152
Medicine	842	826	1,033	987	1,019	1,133	1,550
Other medical sciences	777	953	1,285	1,529	1,897	2,582	2,304
Other	1,227	1,548	1,955	2,035	2,445	2,820	3,233
TOTALS	19,797	24,939	33,055	43,227	54,695	67,100	72,564
Total bachelors' degrees as a percentage of population age 21	8.3	10.0	12.2	14.5	15.7	17.5	19.5

Table 4.25
COMPLETIONS OF COMMUNITY COLLEGE COURSES

	1970-71				1971-72			
	TECHNICAL PROGRAM		UNIVERSITY TRANSFER PROGRAM		TECHNICAL PROGRAM		UNIVERSITY TRANSFER PROGRAM	
	Number	Per cent female	Number	Per cent female	Number	Per cent female	Number	Per cent female
Newfoundland	167	19.2	—	—	215	16.7	—	—
Prince Edward Island	10	—	—	—	44	52.3	—	—
Nova Scotia	326	30.4	37	10.8	354	22.0	36	5.6
New Brunswick	194	8.8	—	—	193	14.0	—	—
Quebec	2,690	51.2	5,922	41.8	2,652	67.6	8,227	44.2
Ontario	7,787	1	—	—	8,687	1	—	—
Manitoba	583	34.5	—	—	643	33.3	—	—
Saskatchewan	623	58.1	—	—	718	59.5	58	22.4
Alberta	2,011	38.1	365	42.5	2,003	38.2	317	38.2
British Columbia	1,335	31.6	112	42.0	1,508	29.2	296	41.2
CANADA	15,726	1	6,436	41.7	17,017	1	8,934	43.6

1) Ontario colleges did not report completions by sex.

Table 4.26
INTERNAL RATES OF RETURN TO INDIVIDUALS[1]

	1961	1967
	per cent	
High school education, male	15.3	11.2
University education, male	14.9	12.7

1) See Concepts and Definitions.

Table 4.27
ENROLMENTS IN CANADA MANPOWER TRAINING PROGRAM[1]

	1967-68	1968-69[2]	1969-70[2]	1970-71	1971-72
Public and private institutions	152,167[3]	266,200[3]	269,891[3]	319,971	276,632
Skill training	..	..	..	155,719	143,828
Language training	..	..	..	13,193	12,527
Basic education upgrading	..	..	..	97,136	74,124
Apprenticeship training	..	..	..	53,923	46,153
Training in industry	31,373	35,000	35,008	24,875	31,520
TOTALS	183,540	301,200	304,899	344,846	308,152

1) Includes full- and part-time enrolment.
2) For these two fiscal years the numbers refer to "authorizations" rather than "enrolments", and are therefore slightly inflated.
3) Breakdown not available for these years.

Table 4.28
ENROLMENT IN PUBLICLY-SUPPORTED RETRAINING PROGRAMS IN BUSINESS AND INDUSTRY, 1971[1]

	Enrolments
Newfoundland	1,373
Prince Edward Island	253
Nova Scotia	1,394
New Brunswick	1,030
Quebec	6,107[2]
Ontario	63,115
Manitoba	4,397
Saskatchewan	1,030
Alberta	2,833
British Columbia	3,979
Northwest Territories	231
CANADA	85,742

1) These programs are made available by industry to its employees under cost-sharing agreements with the federal government. This financial assistance is provided under terms of the Occupational Training of Adults Act (OTA) and administered by the programs branch of the Department of Manpower and Immigration.
2) Under federal program only; data on provincially-supported program not available.

Table 4.29
EMPLOYEES ENROLLED IN ORGANIZED TRAINING IN INDUSTRY, 1969-70[1]

Industry group	OCCUPATIONAL TRAINING						NON-OCCUPATIONAL TRAINING				Total
	Non-apprenticed				Apprentices						
	Trades and other manual skills	Clerical	Sales	Non-management	Registered	Non-registered	Management and supervisory	Languages	Safety	Other	
Forestry	876	4	–	18	129	–	1,017	3	2,395	–	4,442
Mines	8,209	226	68	1,053	1,229	411	6,695	218	16,707	–	34,816
Food	1,267	115	2,438	411	115	18	2,477	251	2,224	–	9,316
Rubber	883	98	298	364	29	10	943	121	1,975	–	4,721
Textiles	3,179	39	44	112	250	87	945	125	1,931	–	6,712
Wood	6,403	267	109	320	1,139	38	6,080	299	14,651	–	29,306
Printing	947	321	365	197	498	284	313	72	1,687	–	4,684
Metal	3,210	161	214	1,019	753	453	4,491	344	2,683	11	13,339
Machinery	19,566	4,558	1,173	4,999	592	185	11,327	1,154	39,274	1	82,829
Petroleum	4,385	542	1,176	870	258	173	5,555	318	12,455	–	25,732
Construction	675	31	26	69	2,798	31	603	7	583	–	4,823
Transportation	41,777	12,447	6,172	4,699	655	2,428	18,769	1,937	30,064	–	118,948
Trade	11,837	4,562	21,563	2,168	1,267	241	8,607	458	21,002	–	71,705
Finance	1,636	8,778	8,692	15,240	19	12	9,116	326	5,763	–	49,582
Personal services	4,824	1,184	1,111	3,061	237	23	3,544	291	8,608	–	22,883
Non-classified	69	28	1,157	41	15	–	177	6	1,215	–	2,708
TOTALS[1]	109,743	33,361	44,606	34,641	9,983	4,394	80,659	5,930	163,217	12	486,546

1) Includes both publicly-supported and privately-supported training. Publicly-supported training programs are made available by industry to its employees under cost-sharing agreements with the federal government. This financial assistance is provided under terms of the Occupational Training of Adults Act (OTA) and administered by the programs branch of the Department of Manpower and Immigration.

Table 4.30
ELEMENTARY AND SECONDARY ENROLMENTS IN THE YUKON, NORTHWEST TERRITORIES AND ARCTIC QUEBEC

	PUBLIC		NORTHERN ADMINISTRATION		INDIAN	
	1960-61	1969-70	1960-61	1969-70	1960-61	1969-70
Arctic Quebec	—	—	508	795	—	—
Yukon	2,607	4,090	54	—	148	—
Northwest Territories:[1]						
Western Arctic	759	6,707	2,807	—	—	—
Eastern Arctic	—	1,485	901	—	—	—
TOTALS	3,366	12,282	4,270	795	148	—

1) As of 1969-70 the territorial government assumed responsibility for all schooling in the Northwest Territories. Prior to that, responsibility was carried by the federal government, under Northern Administration of the Department of Indian Affairs and Northern Development.

Table 4.31
ENROLMENT IN FEDERAL SCHOOLS FOR INDIANS AND INUIT[1]

	1952-53	1961-62	1962-63	1971-72
Newfoundland	—	—	—	—
Prince Edward Island	52	40	33	66
Nova Scotia	605	804	806	565
New Brunswick	388	640	639	671
Quebec[2]	2,426	2,895	2,871	4,658
Ontario	5,861	7,619	7,280	7,157
Manitoba	3,562	5,734	5,839	6,064
Saskatchewan	3,609	5,228	5,263	3,358
Alberta	3,272	4,671	4,527	3,595
British Columbia	5,447	5,812	5,953	3,108
Yukon[3]	294	162	112	—
Northwest Territories[3]	. .	4,330	4,429	—
CANADA	25,516	37,935	37,752	29,242

1) Administered by the Department of Indian Affairs and Northern Development.
2) As of 1960-61, Quebec figures include Arctic Quebec; prior to that year the figures of the Northwest Territories included those of Arctic Quebec.
3) As of 1969-70, all enrolments for the Yukon and Northwest Territories have been reported as public school enrolments; that is, responsibility for education now rests with the territorial departments of education.

Table 4.32
LANGUAGE OF COMMUNICATION IN PRIVATE NURSERY SCHOOLS AND KINDERGARTENS, 1972-73

	New-found-land	Prince Edward Island	Nova Scotia	New Brunswick	Ontario	Manitoba	Alberta	British Columbia	8 prov-inces[1]
First language:									
English	1	20	11	14	516	34	251	233	1,080
French	—	—	—	2	5	3	3	1	14
Other	—	—	—	—	3	2	1	4	10
Second language:									
English	—	—	—	—	2	2	4	4	12
French	—	1	1	—	47	2	19	13	83
Other	—	—	—	—	14	3	2	4	23
No second language	1	19	10	16	461	32	230	217	986

1) Excluding Quebec and Saskatchewan.

Table 4.33
LANGUAGE OF INSTRUCTION IN ELEMENTARY AND SECONDARY SCHOOLS, 1971

	English schools	French schools[1]	Total
Newfoundland	791	1	792
Prince Edward Island	177	7	184
Nova Scotia	647	32	679
New Brunswick	370	196	566
Quebec	519	3,506	4,025
Ontario	4,677	391	5,068
Manitoba	751	52	803
Saskatchewan	1,039	13	1,052
Alberta	1,267	36	1,303
British Columbia	1,656	1	1,657
CANADA	11,894	4,235	16,129

1) Includes some bilingual schools in some provinces.

Table 4.34
POST-SECONDARY ATTENDANCE BY PARENTAL INCOME, ACADEMIC YEAR 1968-69[1]

Family income group	Graduated from university 1968-69	University under-graduate	Community colleges and CEGEPs	Total
		per cent		
Less than $2,000	1.4	1.0	0.9	1.0
$ 2,000 - $2,999	5.1	4.1	4.3	4.2
3,000 - 3,999	6.7	4.9	6.3	5.2
4,000 - 4,999	4.8	6.2	8.8	6.5
5,000 - 6,999	21.1	20.7	29.7	22.0
7,000 - 9,999	21.7	24.6	27.0	24.8
10,000 and over	39.2	38.5	23.0	36.3
	100.0	100.0	100.0	100.0
Median family income	$ 8,502	8,600	7,003	8,349

1) Excluding senior matriculation and foreign students.

Table 4.35
EDUCATIONAL LEVEL BY EDUCATIONAL LEVEL OF PARENTS, 1966[1]

PARENTS' LEVEL OF EDUCATION		LEVEL OF EDUCATION OF CHILDREN			
Father	Mother	Total	University	Secondary	Elementary
			per cent		
University	University	100.0	51.0	46.1	2
Secondary	Secondary	100.0	18.8	74.9	6.3
Elementary	Elementary	100.0	4.8	42.9	52.3
University	Secondary	100.0	35.8	59.7	4.5
Secondary	University	100.0	38.4	57.6	2
University	Elementary	100.0	17.2	64.3	18.5
Elementary	University	100.0	24.8	59.7	15.5
Secondary	Elementary	100.0	10.3	68.9	20.8
Elementary	Secondary	100.0	9.8	70.1	20.1

1) Respondents 14 years and over.
2) Sample too small for reliable estimate.

Table 4.36
OCCUPATION OF PARENTS OF POST-SECONDARY STUDENTS, 1968-69

	Occupation of father	Occupation of all males in labour force	Occupation of mother	Occupation of all females in labour force
		per cent		
Managerial	22	12	2	4
Professional and technical	16	11	7	17
Clerical and sales	21	13	14	40
Craftsmen and production workers	6	32	1	10
Labourers	9	6	2	1
Service	6	7	2	23
Farming	9	12	2	3
Other	11	7	70[1]	2
TOTALS	100	100	100	100

1) Includes housewives, (61 per cent).

Table 4.37
REASONS GIVEN FOR LEAVING UNIVERSITY, 1971-72[1]

	Atlantic	Quebec	Ontario	Prairies	British Columbia	Canada
			per cent			
Lack of:						
Money	21	22	13	14	14	15
Good academic standing	3	1	3	4	2	3
Financial means to leave home	2	1	1	1	2	1
Motivation to continue	1	–	1	2	1	1
Health	2	3	2	2	1	2
Dissatisfaction with:						
University life (expectations not met)	13	14	17	14	13	14
Job opportunities for graduates	10	8	14	15	13	13
Outside attraction of:						
Financial earnings	10	6	7	13	15	11
Interesting job	7	21	7	10	8	9
Special activities	1	4	–	1	1	1
Other	29	22	36	26	31	29
TOTALS[2]	100	100	100	100	100	100
number	2,707	1,838	4,511	7,918	3,866	20,840

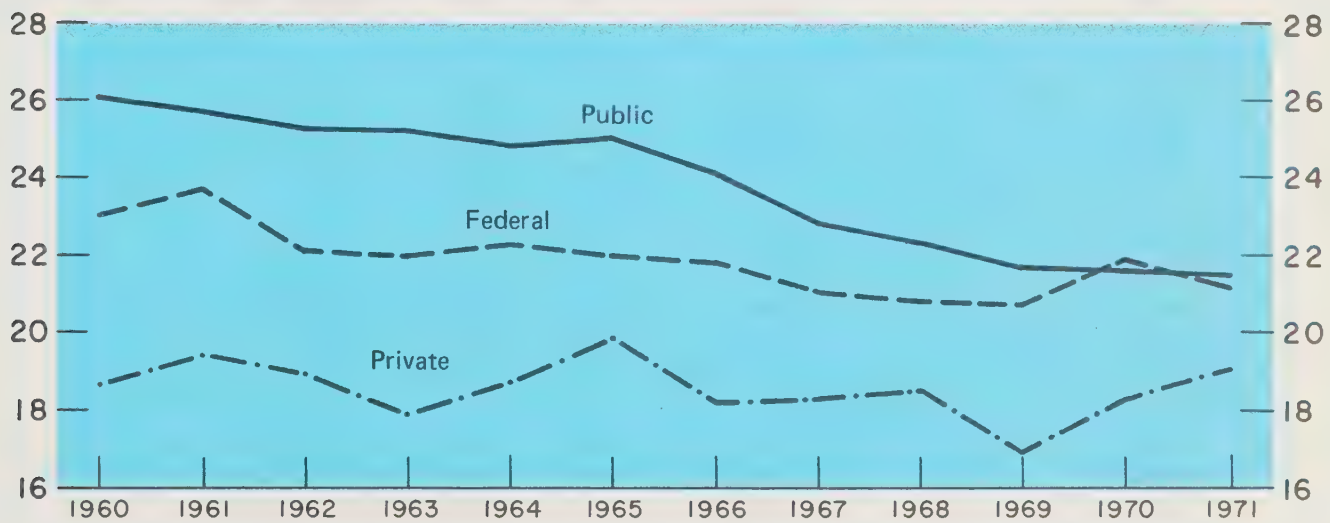
1) By students who had successfully completed their 1970-71 school year but did not return to their studies in September, 1971.
2) Figures will not total due to rounding.

Table 4.38
TOTAL FULL-TIME UNIVERSITY TEACHERS, BY SEX, SHOWING DISTRIBUTIONS BY DEGREE AND BY AGE, 1970-71

		Total	Male	Female	Females as percentage of total
			per cent		
Degree:					
Doctorate		51.1	54.6	27.9	7.0
Master's		33.0	31.0	46.5	18.0
First professional		6.4	6.5	5.7	11.3
Bachelor's		8.5	7.2	17.4	26.0
No degree		1.0	0.7	2.5	33.5
TOTALS		100.0	100.0	100.0	12.8
	number[1]	24,612	21,472	3,140	
Age:					
Under 25 years		1.2	0.8	4.1	43.5
25-29 years		15.0	14.6	17.7	15.0
30-34 "		23.1	23.5	19.4	10.7
35-39 "		19.8	20.7	14.1	9.1
40-44 "		14.9	14.9	14.7	12.6
45-49 "		10.7	10.7	11.1	13.2
50 years and over		14.9	14.4	18.3	15.7
Age not reported		0.4	0.4	0.6	18.0
TOTALS		100.0	100.0	100.0	12.8
	number[1]	24,612	21,472	3,140	

1) There were 121 teachers who did not report some of the information required.

Chart 4.39
PUPIL-TEACHER RATIOS IN ELEMENTARY AND SECONDARY SCHOOLS(1)



(1) The number of pupils per full-time teacher.

Table 4.40
EXPENDITURES ON EDUCATION IN RELATION TO SELECTED INDICATORS, AND LEVEL OF STUDY

	EXPENDITURE PER FULL-TIME STUDENT					
	Elementary and secondary	Post-secondary[1]		Total expenditure	Percentage of personal income	Per head of population
		Non-university	University			
	dollars				per cent	dollars
Newfoundland:						
1960	133	1,075	989	23,477,000	5.7	52
1965	178	1,396	1,118	41,305,000	6.8	85
1970	349	2,307	2,858	109,595,000	10.6	212
Prince Edward Island:						
1960	142	752	941	5,687,000	5.9	55
1965	240	1,113	1,315	10,659,000	7.8	98
1970	483	2,083	2,598	26,729,000	11.7	243
Nova Scotia:						
1960	198	961	1,141	57,304,000	6.2	79
1965	274	1,263	1,838	103,253,000	8.7	137
1970	523	2,366	3,295	274,592,000	14.4	351
New Brunswick:						
1960	184	889	1,094	42,621,000	6.4	72
1965	248	1,002	1,641	73,458,000	8.3	119
1970	415	1,831	2,778	171,052,000	12.1	273
Quebec:						
1960	235	853	1,516	447,957,000	6.0	87
1965	428	974	1,837	980,733,000	9.2	173
1970	746	1,477	4,099	1,948,459,000	11.6	324
Ontario:						
1960	313	962	1,956	609,244,000	5.1	100
1965	435	1,284	2,588	1,238,526,000	7.5	182
1970	825	2,308	4,365	2,962,418,000	10.6	392
Manitoba:						
1960	289	1,141	1,617	80,636,000	5.4	89
1965	363	1,345	1,987	147,175,000	7.8	153
1970	655	2,308	3,480	303,346,000	10.6	309
Saskatchewan:						
1960	336	861	1,393	94,864,000	7.0	104
1965	419	1,344	1,926	155,475,000	8.7	164
1970	645	3,697	3,237	284,237,000	13.4	302

See footnote(s) at end of table.

Table 4.40
EXPENDITURES ON EDUCATION IN RELATION TO SELECTED INDICATORS, AND LEVEL OF STUDY – Concluded

	EXPENDITURE PER FULL-TIME STUDENT					
	Elementary and secondary	Post-secondary[1]		Total expenditure	Percentage of personal income	Per head of population
		Non-university	University			
	dollars				per cent	dollars
Alberta:						
1960	381	942	1,702	157,335,000	7.4	122
1965	455	1,115	2,373	285,250,000	9.7	197
1970	793	2,249	3,788	612,746,000	12.3	384
British Columbia:						
1960	366	1,007	1,469	166,336,000	5.4	104
1965	440	1,301	1,995	313,194,000	7.3	174
1970	685	2,184	3,798	631,353,000	8.8	297
CANADA:[2]						
1960	284	915	1,603	1,705,986,000	5.8	95
1965	410	1,134	2,102	3,399,505,000	8.3	173
1970	731	1,928	3,949	7,408,860,000	11.1	348
Total Canadian expenditure on education as a percentage of Gross National Product:						
1960	4.5					
1965	6.2					
1970	8.8					

1) CEGEP expenditures for academic students are classified as non-university starting with 1969. Expenditures for transfer students are included with university up to 1968, but with non-university in 1970.
2) Includes figures which are not distributed by province.
Note: These figures are under revision.

Allocation of Time

5

The way people spend their time has always been of vital concern to mankind and its lawmakers. Injunctions on how man ought to allocate his time can be found in many ancient religious scriptures. Although they were expressed in ritualistic terms, they had in fact significant socio-economic implications. The allocation of the seventh day for rest is, of course, the most familiar example. Modern man tends to view the allocation of time in socio-economic rather than religious terms. This view in its most extreme form suggests that the allocation of time can be rigorously analyzed in terms of forgone earnings.[1]

Industrialization revolutionized the concept of time. The complex interrelated nature of production and scheduling demanded a precision in time governed by the clock, rather than the natural daily and seasonal rhythm prevalent in agricultural societies. Rigid time scheduling became the order of work life and the "slave to the clock" syndrome has permeated all aspects of life, even to the point of setting aside time for leisure. Recent research indicates that individuals have quite different biological time cycles, and suggests that these should be recognized by a greater degree of flexibility in time-use patterns, allowing for individual preferences.

In the section of this chapter on employment time, attention is focused on the individual's choice of working cycle at three different levels – the daily, yearly, and the total life cycle. In the section on leisure time, a major consideration is the individual's ability to enjoy and use this time according to his own wishes. This leads to the corollary concern that there be adequate facilities to enable people to enjoy leisure time.

EMPLOYMENT TIME

It is difficult to delineate precisely the boundary between work, maintenance and leisure activities because they tend to shade into each other. Employment time and non-employment time, however, can be pragmatically separated by the use of the definition of employment time as that which takes place in recurring market activities (physical or mental) involving direct economic gain.

The diminution of formal work time has taken place on three levels: the daily-weekly, the yearly, and the total life cycle. Technological innovation, shifts in the work force from agriculture to industry, and expansion of the trade union movement contributed to the decline in the standard hours of work per day and per week, especially prior to the Second World War. The post-war period also witnessed a reduction in standard working hours (although at a slower rate) with a trend towards stabilization at approximately a five-day, 40-hour week. Recently, however, there have been some interesting experiments related to the shortened week where the same number of weekly hours of work is compressed into four or even three days. Another recent innovation in the work week has been the "flexible hours" system, giving the employees some degree of freedom in choosing their daily hours of work subject to the constraints of working during "core hours" and completing a weekly quota of hours.

The yearly work pattern has undergone changes during the last two decades, with prevalence of paid holidays and vacations, as well as the trend towards longer vacations.

Until now, a man's life cycle could be neatly divided into three stages. During the first stage, which might be called "pre-labour-force", a person acquires training and skills which enable him to find a gainful occupation. The second stage generally starts some time between the age of 18 and 25, and consists of working years. Retirement is the last stage.

This three-stage cycle appears to be undergoing significant changes. As the level of technology in modern society has increased, both the demands for a more educated labour force and the opportunities for gaining that education have increased, with the result that the average age of first entrance into the labour force has shifted upwards. At the other end of the life cycle the average age of formal retirement appears to have been reduced, influenced no doubt by the provision of both organized and personal schemes for the maintenance of income.

Human capital acquired in the earlier years seems to depreciate much faster now in an area of rapid technological advancement. Thus there is a need for people to acquire new training and skills to be able to compete effectively in the labour market. Some employers are providing additional training for their employees. The idea of sabbatical leave is attracting attention outside the academic community where it has been established for some time. Finally, it can be

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[1] See Gary Becker's article on the allocation of time, in which he throws new insight on how time is allocated between consumptive and productive activity. The theory suggests that the consumption of goods and services cannot be separated from the time required to consume them; that production does not end at the enterprise but continues in the household, which combines inputs with time to produce goods and services. Thus production and consumption must be viewed as a continuum in which at one end we have pure production (work), and at the other end pure consumption (leisure). Most activities, however, fall in between the two, with a mixture of both leisure and work. It is then argued that for society as a whole, and for individuals, activities taking place in non-work time can be valued in terms of forgone earnings. This formulation of work and leisure permits one to examine the allocation of time in terms of substitution of goods for time, and the opportunity cost of leisure for work. A rise in earnings, for example, would lead to an increase in the opportunity cost of non-employment time.
Gary S. Becker, "The Theory of the Allocation of Time", *The Economic Journal*, Vol. 75, No. 229, Sept., 1965.

speculated that in future people might spread their "retirement" over the whole life-span instead of delaying it to a single lump towards the end of their lives when their ability to enjoy it is not at its peak. As a result of these changes, the individual may in the future exercise more choice in determining the pattern of his whole life cycle.

Employment time is shown in order to get some idea of the amount of free time available to people. These tables were obtained from either the regular Statistics Canada monthly *Labour Force Survey* or from the Department of Labour's annual *Survey of Working Conditions in Canadian Industry*. The latter survey is designed to cover firms having 20 or more employees in any of the preceding 12 months and is thus not representative of the working conditions in smaller establishments. The distribution of the standard weekly hours of work is shown. Paid holidays and paid vacations, average expected years spent in labour force, prior to entry into labour force, and in retirement are also given.

LEISURE TIME

Leisure time is that portion of time which most reflects the individual's own tastes, values and temperament. Although there is no dispute over the decrease in employment time, the resultant increase in non-employment time may not have given rise to a corresponding increase in discretionary or leisure time. Since at this stage of statistical development we have not undertaken a national time-budget survey in Canada, one cannot make definite statements about the overall use of non-employment time. One can speculate that increasing urbanization has absorbed some of the available supply of non-employment time in expanded maintenance activities and travel to work. The increase in participation of married women in the labour force has involved men and children in a greater number of household activities.

In formal time budgeting, leisure tends to be relegated to a residual category after accounting for work, obligatory duties, maintenance, and sleep. Quite frequently, leisure time is associated with discretionary time, a time when choice of activity or non-activity is paramount. Enforced idleness (e.g. retirement, unemployment, sickness) is not necessarily leisure time, as the individual might rather choose to work. Social pressures may put people in ambiguous situations so that they may be engaged in a so-called leisure activity which they do not enjoy or, of course, they may be engaged in an "obligatory activity" which they do enjoy. It is important, therefore, to view leisure in the psychological context; a conscious awareness that one is engaged in an activity of one's own choosing for the sake of enjoyment.

One may also speculate that life in a highly organized society and exposure to formal education has had a detrimental effect on the ability to take a more independent, inquisitive and self-sufficient approach to discretionary time. It has been suggested that the over-organization of modern life has affected even the leisure area, as is evident in such practices as "canned" laughter and applause during many entertainment performances on radio and television.[2]

Despite the subjective elements that permeate leisure and maintenance time, time-budget studies carried out elsewhere have permitted some meaningful comments on both aspects of time.[3] Plans for a time-use survey across Canada are now being explored. Data from this survey will permit cross-classifications between patterns of time use (particularly leisure time use) and socio-demographic and socio-economic characteristics of the respondents. Hopefully, it will indicate how patterns of leisure activities vary between weekdays and weekends, and between the seasons. Periodic repetitions of this survey would permit the identification of future variations in leisure patterns.

Since more details of work and work time will be given in the next chapter, the bulk of the data contained here relates to the use of leisure time. Both because of the difficulty of defining leisure objectively and because of its subjective elements, data pertaining to leisure vary in amount and quality. The data we do have, however, come to grips only indirectly with such basic concerns as how leisure time is spent, how activities are distributed throughout the population, and how these distributions are changing over time.

Indirect statistics, such as consumption of leisure-related goods and services, and the percentage of households possessing leisure-related goods, are also shown.

FUTURE DEVELOPMENT

There are many areas in leisure time in which there is a dearth of statistical information. For example, we have very few data on home entertaining, on library use (other than stock and circulation figures), on the content of books read and television programs watched, or on membership and participation in social clubs, youth organizations and other more formally organized recreation. Data on how people spend their vacations are also sparse. Cross-classifications by socio-economic and socio-demographic variables could improve the data and reveal interesting problems and changes therein. The existence of statistical information in the areas listed could facilitate the task of policy-makers from all levels of government and private organizations regarding decisions on needed facilities and services.

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[2]Mordecai Roschwald, "Order and Over-Organization in America", *The British Journal of Sociology*, March, 1973.

[3]Vancouver Study, S.M. Weis and S.J. Scheu, Department of Sociology, University of British Columbia, 1973, as yet unpublished.
Halifax Study, Andrew Harvey, Institute of Public Affairs, Dalhousie University, 1972, as yet unpublished.

Table 5.1
STANDARD HOURS OF WORK

Standard work week[1]	1951	1957	1961	1966	1971
Office workers	38.6	37.9	37.7	37.4	37.6
Plant workers	43.6	41.6	41.3	41.0	39.3

1) Standard work week relates to manufacturing. The standard working hours are specified in a collective agreement, or fixed by the employer for his workers.

Table 5.2
EMPLOYEES WHO RECEIVED NINE DAYS OR MORE PAID HOLIDAYS,[1] BY INDUSTRY

	1961		1971	
	Office	Non-office	Office	Non-office
	per cent			
Manufacturing	29	19	83	75
Mining	..	11	90	80
Transportation, communication and public utilities	36	25	95	92
Service	..	14	77	54
Trade	50	44	72	61
Finance and insurance	65	..	85	59
Logging	..	..	84	72
Public administration	..	..	100	100

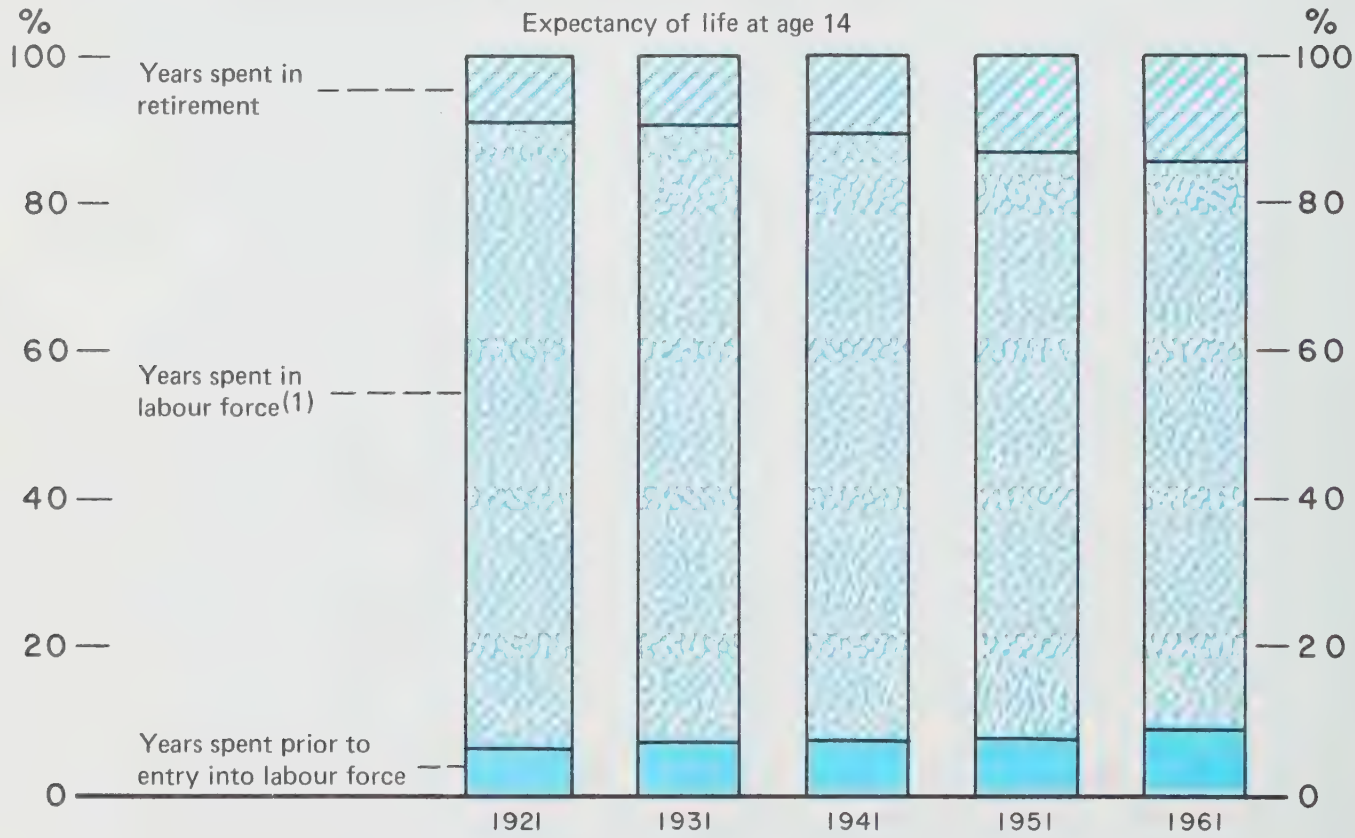
1) Holidays include Christmas, Easter, etc., but not annual vacation leave.

Table 5.3
EMPLOYEES WHO RECEIVED TWO WEEKS PAID VACATION,[1] BY INDUSTRY

	1961		1971	
	Office	Non-office	Office	Non-office
	per cent			
Manufacturing	82	23	91	77
Mining	..	8	94	84
Transportation, communication and public utilities	69	33	91	90
Service	..	22	86	76
Trade	79	67	90	84
Finance and insurance	98	..	97	71
Logging	..	..	91	82
Public administration	..	..	81	86

1) After one year or less of employment.

Chart 5.4
LIFE CYCLE OF CANADIAN MALES 14 YEARS OF AGE AND OVER



1) Average expected number of years may be interrupted by a return to school, travel, etc.

Chart 5.5
PARTICIPATION BY DIFFERENT AGE GROUPS IN LEISURE-TIME ACTIVITIES, 1972(1)

1) The data cover a reference period of approximately 2 1/2 months from Jan. 1, 1972. It is reasonable to assume, therefore, that the figures reflect seasonal variations in leisure activities. This table gives an estimate of the percentage of people by age group who participated in these activities by hours per week. Only conscious leisure time activities were to be reported, i.e. listening to the radio while driving should not be included.
2) Professional or semi-professional sport activities are not included.

Table 5.6
ATTENDANCE AT PAID AND FREE EVENTS, BY DIFFERENT AGE GROUPS, 1972[1]

	PAID				FREE			
	All ages	14-24 years	25-64 years	65 years and over	All ages	14-24 years	25-64 years	65 years and over
Live theatre	11.3	17.3	8.8	3.9	2.0	4.7	1.0	0.3
Opera or operetta	1.7	1.8	1.6	1.1	0.3	0.5	0.2	0.3
Ballet	1.1	1.4	1.0	0.5	0.2	0.5	0.1	0.0
Classical music performance	6.5	8.1	5.7	3.2	2.6	4.6	1.8	1.0
Other musical performances	13.3	28.9	7.3	1.5	4.1	9.5	1.9	0.8
Other live performances	11.9	15.6	10.3	4.7	4.1	6.5	3.1	1.0
Visit to museum	4.8	6.8	3.9	1.6	2.8	4.6	2.0	1.4
Visit to public art gallery	3.4	4.9	2.8	1.3	3.7	5.7	2.8	1.2
Visit to historic site or building	5.8	8.3	4.7	2.0	5.2	7.9	4.0	1.6
Exhibition, fair or carnival	12.5	18.3	10.2	3.3	5.5	9.4	4.0	0.9
Movie	38.2	61.1	29.3	8.5	4.6	9.3	2.7	1.1
Sport events	23.4	37.7	17.9	4.3	12.8	22.8	9.0	1.9

1) Percentage of selected age groups who attended the specified events at least once during the survey period of 2 1/2 months duration from Jan. 1, 1972. It is reasonable to assume that the figures are biased to winter events.

Table 5.7
POPULATION INVOLVED IN FORMAL EDUCATION AS A LEISURE-TIME ACTIVITY, 1972[1]

	NUMBER OF HOURS PER WEEK[2]							
	0	1	2	3	4-6	7-9	10+	Total
	per cent							
Continuing education	95.4	0.3	0.4	0.5	0.9	0.5	2.0	100.0
Adult education	96.6	0.7	0.9	0.7	0.6	0.2	0.3	100.0
Performing and creative arts	97.8	0.6	0.4	0.3	0.5	0.1	0.3	100.0

1) Percentage of population age 14 years and over
2) The number of hours per week devoted to formal education refers to the total class time, related study and travel time. Only formal education as a leisure-time activity was enumerated, i.e. full-time attendance at school, university, etc., was excluded. It should also be noted that these figures are estimates of the percentage of the population 14 years and over involved in formal education by number of hours a week.

Table 5.8
PARTICIPATION IN SELECTED SPORTS, BY PROVINCE, 1972[1]

	Canada	New-found-land	Prince Edward Island	Nova Scotia	New Bruns-wick	Quebec	Ontario	Manitoba	Saskat-chewan	Alberta	British Columbia
						per cent					
Golf	7.5	1.6	5.7	5.0	4.3	5.4	9.1	8.1	6.7	10.5	8.8
Tennis	5.0	2.6	2.4	2.9	2.6	4.4	5.6	3.8	2.4	6.0	7.2
Bowling	11.8	5.4	9.5	12.0	10.6	11.2	13.5	10.3	8.2	11.8	11.8
Curling	4.4	2.1	3.4	3.0	2.5	1.3	3.5	11.8	14.5	12.4	4.1
Skating	14.6	19.4	17.9	19.0	15.3	12.6	16.5	13.0	11.3	16.5	12.0
Skiing	6.8	1.8	2.4	3.1	4.0	9.3	6.2	2.5	1.9	9.4	7.5
Snowmobiling	12.2	7.7	14.4	9.2	16.2	14.9	12.5	12.1	13.6	11.0	4.2
Swimming	28.5	22.9	27.7	31.5	23.9	20.1	35.7	24.3	19.2	26.5	35.5
Waterskiing	5.2	1.4	2.4	2.5	2.2	3.0	6.7	4.7	4.8	7.6	7.7
Jogging	7.1	5.2	3.6	5.0	6.0	7.5	6.7	7.4	6.2	7.9	8.3
Walking	41.9	32.5	29.6	35.9	37.3	46.3	40.2	42.6	33.7	41.6	44.8
Bicycling	11.8	7.0	7.1	8.4	8.7	9.8	13.1	13.9	11.1	15.5	13.4
Hunting and fishing	19.6	26.7	20.2	24.2	22.4	14.3	20.5	20.1	22.4	23.3	23.2
Hockey	8.1	9.7	7.8	8.1	9.0	10.1	8.3	6.2	5.4	6.2	4.6
Other	9.9	6.7	7.9	9.4	7.6	8.0	11.0	7.9	9.4	12.2	12.5

1) Percentage of population 14 years of age and over participating at least once a week, in season.

Table 5.9
TRAVEL IN THE UNITED STATES BY CANADIAN RESIDENTS

	1968	1969	1970	1971	1972
	thousands of trips				
Leaving and returning same day	24,798	25,334	25,072	23,514	23,075
Staying one or more nights	7,898	8,611	8,986	9,072	8,724
TOTALS	32,696	33,945	34,058	32,586	31,799[1]
Of these trips of **2 days and more**, the percentage whose purpose of trip was holiday and recreation, and visiting friends or relatives, was:	per cent				
Holiday and recreation	54.3	58.7	55.9	58.2	55.2
Visiting friends or relatives	26.8	25.5	26.9	24.5	26.9

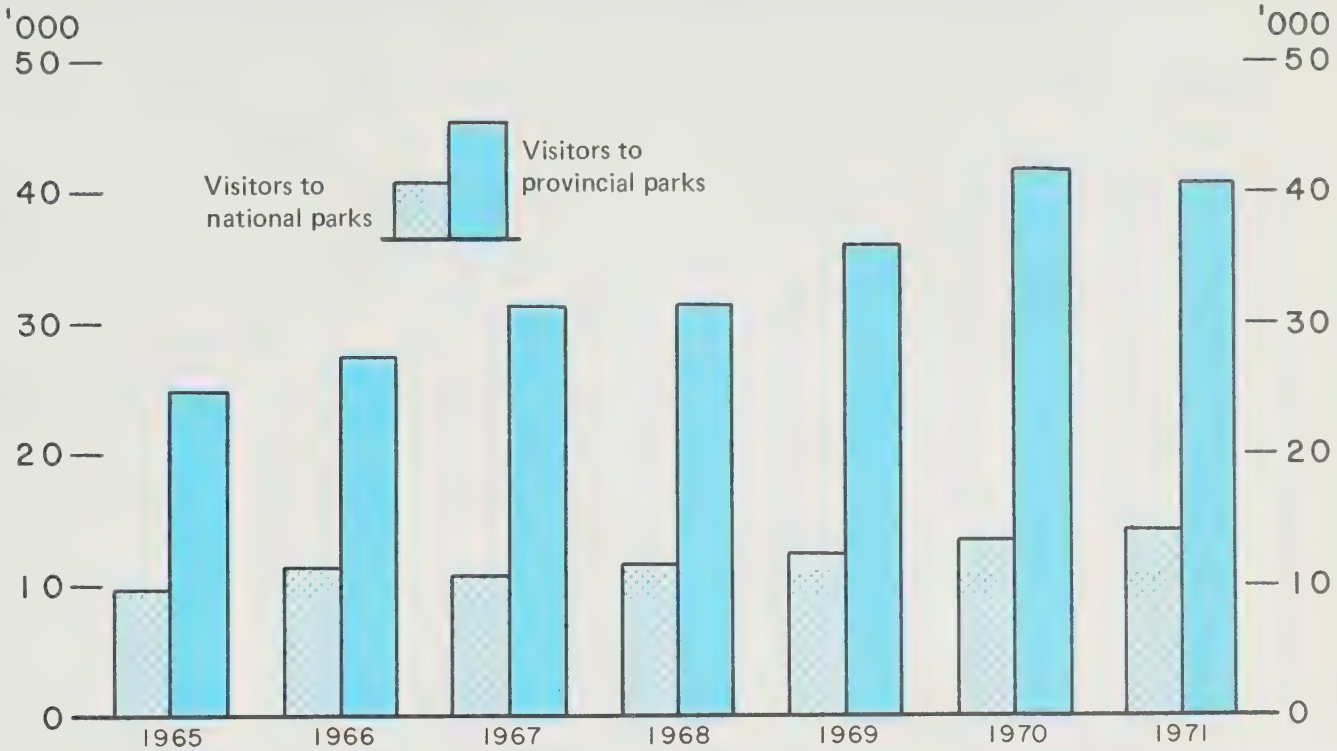
1) Figure for 1972, excluding crews, totalled 30,448,000.

Table 5.10
OVERSEAS TRAVEL BY CANADIAN RESIDENTS

		TRIPS				
		1968	1969	1970	1971	1972
		per cent				
United Kingdom and Western Europe		61.0	59.1	55.6	53.7	58.4
Bermuda, Caribbean, and Mexico		25.2	22.8	22.2	26.4	21.7
Hawaii		4.6	3.5	3.2	4.4	4.1
All other countries		9.2	14.6	19.0	15.5	15.8
TOTALS		100.0	100.0	100.0	100.0	100.0
Number	'000	638.0	852.0	1,099.0	1,197.0	1,228.0[1]
Percentage of these trips for purposes of holiday, recreation and visiting friends or relatives:						
Holiday and recreation		55.3	56.5	57.4	61.4	61.0
Visiting friends or relatives		31.8	31.6	29.7	26.1	28.9

1) The figure for 1972, excluding crews, totalled 1,144,000.

Chart 5.11
VISITORS(1) TO PROVINCIAL AND NATIONAL PARKS



1) Includes all visitors regardless of country of residence, i.e. includes visitors from the United States and overseas.

Table 5.12
SALES OF HUNTING LICENCES[1]

	1966-67	1968-69	1970-71	1971-72
	thousands			
CANADA	2,147.2	2,220.1	2,327.5	2,335.3
Newfoundland	32.7	47.3	72.6	65.4
Prince Edward Island	3.4	4.1	4.1	4.6
Nova Scotia	79.2	89.2	88.3	91.0
New Brunswick	77.4	76.2	82.1	82.0
Quebec	359.2	353.6	382.8	378.9
Ontario[2]	662.0	594.4	556.2	562.0
Manitoba	81.2	103.7	159.2	171.6
Saskatchewan	137.9	166.2	163.8	169.1
Alberta	294.2	349.8	367.3	377.8
British Columbia	417.2	426.3	440.8	422.6
Yukon	2.8	3.5	4.4	4.4
Northwest Territories	..	5.8	5.9	5.9

1) Figures must be viewed with caution for a number of reasons. Hunting licences vary from province to province and are sold to non-residents of Canada as well as residents. Hunting permits are sold only to persons age 14 and over. One hunter may purchase several types of licences, so the number of licences sold does not indicate the number of persons purchasing.
2) Ontario figures prior to 1968 may not be strictly comparable with those for 1968-71 due to changes in the format of presentation of the source documents.

Table 5.13
NUMBER OF ANGLING LICENCES ISSUED

	1966-67	1968-69	1970-71	1971-72
	thousands			
CANADA	1,848.6	2,165.8	2,729.3	2,165.5
Newfoundland	16.6	17.0	17.8	17.3
Prince Edward Island	10.4	11.2	12.0	12.3
Nova Scotia	69.3	73.7	76.4	76.7
New Brunswick	64.1	69.7	71.0	15.3
Quebec	421.2	502.8	532.1	530.9
Ontario	584.7	698.9	1,167.9[1]	644.8
Manitoba	104.6	119.9	117.4	138.3
Saskatchewan	110.0	130.4	132.8	139.4
Alberta	133.2	141.4	149.0	160.3
British Columbia	289.4	328.8	376.2	357.5
Yukon	9.6	10.5	10.1	..
Northwest Territories	4.5	5.6	6.0	6.6
National Parks	31.0	55.9	60.6	66.1

1) Ontario residents were required to procure fishing licences for fishing within Ontario as of 1969. This accounts for the considerable increase in the figures between 1968 and 1970. Fishing licences in Ontario were required by resident males 19 years of age and over in the years 1968-70 but are no longer required; residents of the western provinces are considered as residents of Ontario for purpose of fishing in this province and no longer require a licence to fish; data for fishing licences sold in Ontario represent persons who are resident of Quebec, New Brunswick, Nova Scotia, Prince Edward Island, Newfoundland, Northwest Territories, Yukon and other countries. In 1970-71, of the 1,167,900 licences sold in Ontario, 605,300 were sold to non-residents and 552,600 to residents.

Chart 5.14
HOUSEHOLDS WITH SELECTED ENTERTAINMENT EQUIPMENT

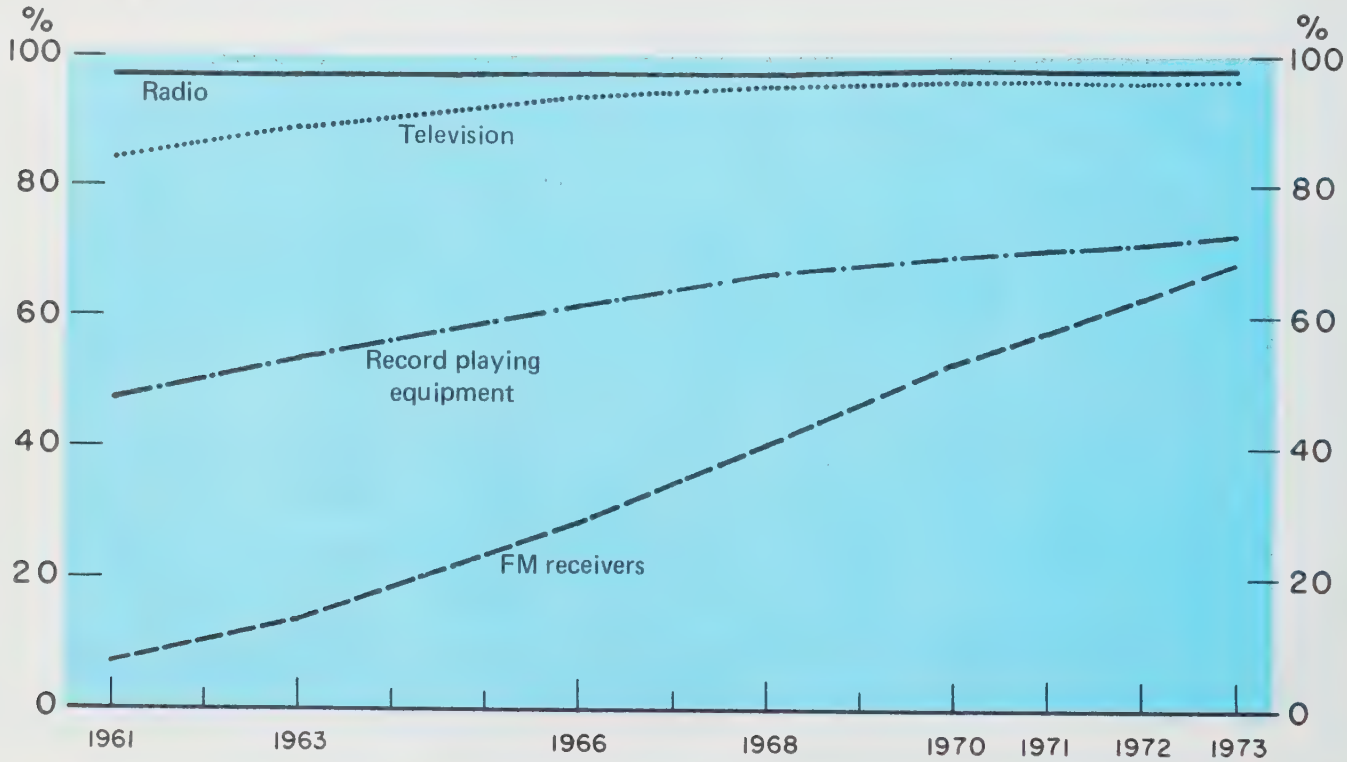


Table 5.15
HOUSEHOLDS WITH SELECTED RECREATIONAL EQUIPMENT, BY PROVINCE, 1973

	HOUSEHOLDS WITH OUTDOOR RECREATIONAL EQUIPMENT			
	Boats[1]	Overnight camping equipment[1]	Snowmobiles	Adult-size bicycles
	per cent			
CANADA	12.4	17.7	9.2	29.1
Newfoundland	20.0	15.2	8.8	22.1
Prince Edward Island	- -	- -	- -	21.4
Nova Scotia	13.2	14.8	7.0	23.8
New Brunswick	10.1	14.9	13.0	27.3
Quebec	8.3	13.2	12.0	27.1
Ontario	13.9	15.9	8.6	31.0
Manitoba	12.6	19.6	10.1	29.4
Saskatchewan	9.8	18.5	12.5	31.6
Alberta	11.7	30.3	8.3	31.2
British Columbia	17.5	27.3	2.5	28.3

	HOUSEHOLDS WITH INDOOR RECREATIONAL EQUIPMENT				
	Tape recorders	Record playing equipment	Radios	TV sets	FM receivers
	per cent				
CANADA	31.6	72.3	97.7	96.0	67.3
Newfoundland	30.1	64.6	94.7	93.8	29.2
Prince Edward Island	28.6	60.7	85.7	96.4	42.9
Nova Scotia	29.9	66.4	98.1	95.8	52.8
New Brunswick	28.6	69.6	96.9	95.7	43.5
Quebec	23.8	71.3	97.5	97.2	73.5
Ontario	33.6	74.3	97.9	96.6	72.9
Manitoba	32.5	69.2	97.6	94.2	59.2
Saskatchewan	33.1	69.6	98.5	95.1	49.4
Alberta	37.0	73.2	97.9	94.0	60.0
British Columbia	40.1	73.6	98.0	94.3	65.2

1) These figures are for 1971.

Table 5.16
ESTIMATES OF CONSUMER EXPENDITURE ON RECREATION, IN CURRENT AND CONSTANT (1961) DOLLARS

	1951				1961		1971[1]			
	CURRENT DOLLARS		1961 DOLLARS		CURRENT DOLLARS		CURRENT DOLLARS		1961 DOLLARS	
	Millions of dollars	Dollars per household	Millions of dollars	Dollars per household	Millions of dollars	Dollars per household	Millions of dollars	Dollars per household	Millions of dollars	Dollars per household
Recreation goods:										
TV, radio, phonograph, records, etc.	70.6	20.71	68.8	20.18	90.5	19.87	312.8	51.78	227.8	45.99
Recreation vehicles (incl. boats)	17.6	5.16	18.4	5.40	227.5	49.95	500.5	82.85	562.2	93.06
Other recreation goods	120.9	35.46	134.4	39.43	311.6	68.41	963.6	159.51	727.7	120.46
Recreation services:										
Cablevision	–	–	–	–	6.6	1.45	87.5	14.48	87.5	14.48
Motion pictures	106.1	31.12	174.2	51.10	80.9	17.76	150.0	24.83	72.3	11.97
Other recreation services	111.6	32.74	172.0	50.45	234.6	51.50	626.2	103.66	437.2	72.37
Total personal income:										
Millions of current dollars	16,791				30,104		73,391			
Number of households:										
Millions	3,409[2]				4,555		6,041			
Population:										
Millions	14,009				18,238		21,569			

1) Based on preliminary data.
2) Does not include the Yukon and Northwest Territories.

Chart 5.17
STOCK AND CIRCULATION OF PUBLIC LIBRARIES PER PERSON

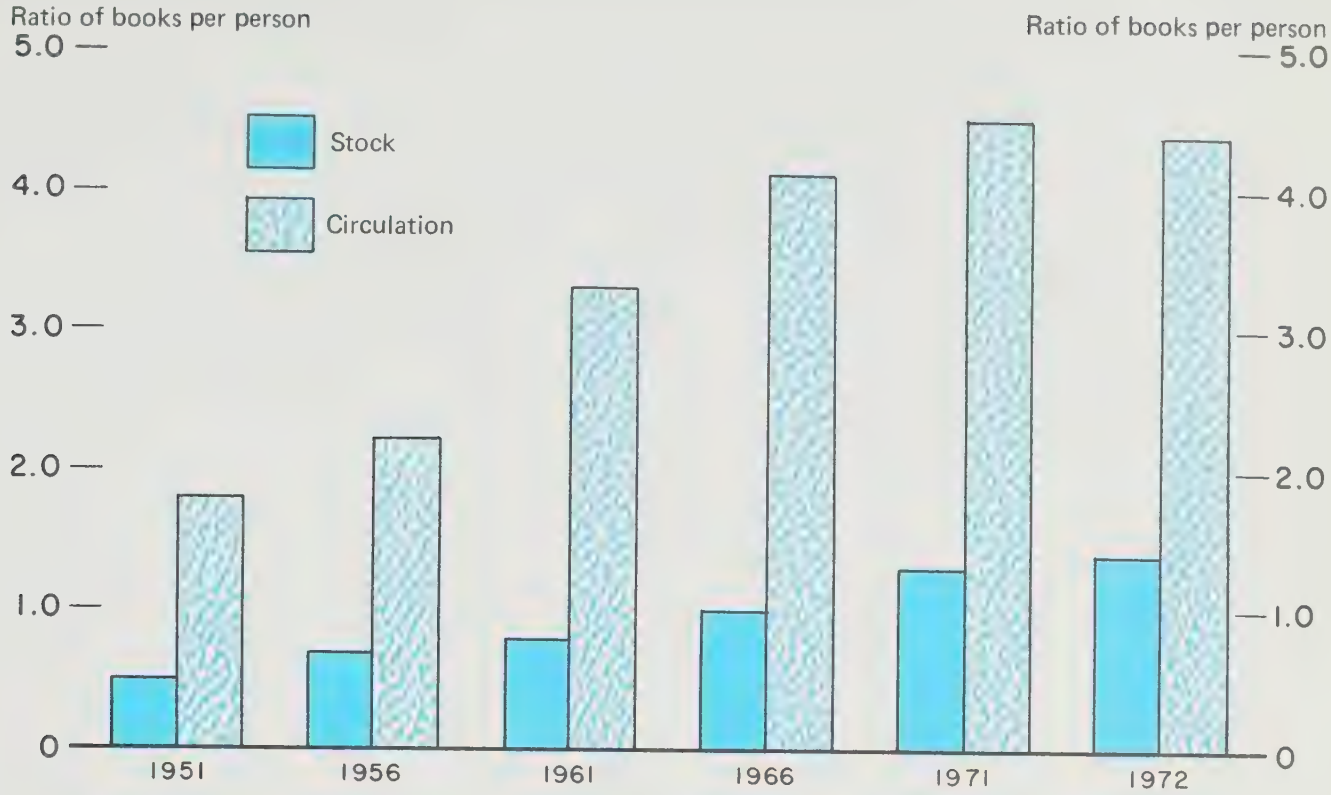


Chart 5.18
STOCK AND CIRCULATION OF PUBLIC LIBRARIES PER PERSON, 1972

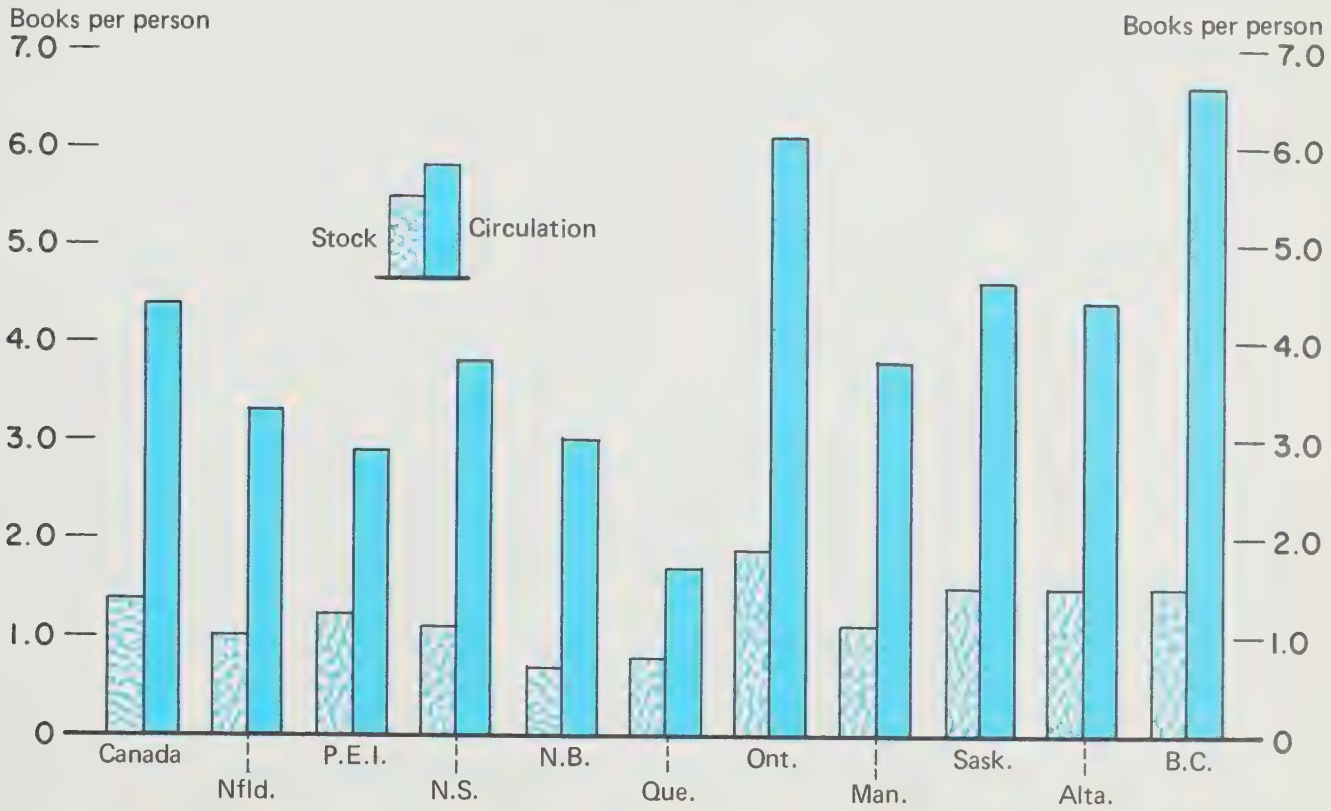


Table 5.19
MOTION PICTURE AND DRIVE-IN THEATRES

	ESTABLISHMENTS		PAID ADMISSIONS	
	Regular motion picture theatres	Drive-in theatres	Regular motion picture theatres	Drive-in theatres
			thousands	
1951	1,808	82	239,132	6,555
1956	1,849	237	162,859	9,706
1961	1,341	238	97,945	9,474
1966	1,149	245	87,694	11,265
1969	1,157	271	78,918	11,308

Work
6

Any discussion of how Canadians use their time must take into account that most Canadian adults spend some 50 per cent of their waking hours earning a living.

The availability of work, its distribution as to occupation, what it pays, job conditions, and the satisfaction derived from work, are major areas of concern. This chapter provides statistical measures of some aspects of these concerns, and identifies those areas in which there should be more information.

The following material deals with employment, unemployment, growth of the labour force, the presence or absence of discrimination in employment, particular problems faced by the Canadian labour force, and occupational and industrial changes in the labour market. We also look for answers to such questions as: Who are the unemployed? How long are they without work? What hardships are encountered? What income supplements are available? Can underemployment be identified?

Job conditions and remuneration are indicated by data on pay and fringe benefits, hours worked, vacations and holidays, physical conditions and surroundings, labour relations, and safety. Finally, the chapter offers some tentative indicators of job satisfaction.

EMPLOYMENT

GROWTH OF LABOUR FORCE

Since 1900 the population of Canada 14 years of age and over has risen 343 per cent, but the labour force has grown 372 per cent; parallel figures since 1951 are 62 and 70 per cent. This development can be partly explained by the larger proportion of immigrants entering the labour force, but an even larger factor is the sharply rising number of working women. Between 1951 and 1972, the number of males in the labour force rose only 46 per cent while the number of women working or actively seeking work increased by 157 per cent.

CHANGING PARTICIPATION RATES

Labour force participation rates change in many ways over time by sex, age, and area. The most marked changes in Canada in this century have been the drop in male participation (over 14 percentage points since 1911) and the rise in female participation. The decline in male participation can be attributed to both earlier retirement and to the longer period devoted to education. In the case of women, participation has risen from 16.1 per cent in 1901 to 37.1 per cent in 1972. It is the women in the 25-54 age group that have caused this dramatic rise; in 1941, this group constituted only nine per cent of the labour force, whereas they now account for over 18 per cent.

This development has heightened concerns about sex discrimination in its various forms – differential pay rates, barriers to advancement, and social and other pressures that constrain occupational choice – and most provinces now have adopted "equal pay for equal work" legislation, which, through difficult to enforce, is a necessary beginning to ensure equity of rewards. Statistics for 1969 show earning differentials between men and women in the same occupation ranging as high as 74 per cent, with a heavy concentration in the 25 to 30 per cent range. A more startling finding from a recent study of manufacturing industries[1] showed that during the 20 years 1948-1968 only two of 12 manufacturing industries could show any substantial improvement in the female-to-male pay ratio. Half the industries showed no change and in the remaining four the women had lost ground.

Concentration on the traditionally female occupations is a major reason for lower earnings. The influx of women into the labour market in the 1960s did not significantly change the pattern, since most women found employment in the trade and service industries – as teachers, secretaries, waitresses, sales staff, etc – rather than through breaking new ground.

Some of the most significant recommendations of the Royal Commission on the Status of Women were directly concerned with equal pay for women, the elimination of discrimination on grounds of sex and/or marital status, the sex-typing of occupations, and the application of such employee benefits as pensions, unemployment insurance, and Workmen's Compensation in a non-discriminatory manner.[2] Other equally disturbing discriminatory practices – which undoubtedly exist – can unfortunately not be demonstrated statistically at this time.

Over the past two decades, the most marked industrial changes in the labour force have been the rise in the service industries' share of total employment (18 per cent in 1951 to 53 per cent in 1971) and the decline in the agricultural share from 18 to 6 per cent, leading to parallel shifts in the occupational distribution of the labour force.

CANADA'S SPECIAL PROBLEMS

The Canadian labour force has specific regional attributes. Many areas are dependent on primary industries: portions of the coastal labour markets are closely tied to fishing and fish processing; the forested areas of British Columbia, New Brunswick, Quebec and Ontario demand parts of the labour force to be skilled in

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[1] *Notes on Labour Statistics,* 1971, Statistics Canada, Catalogue 72-207

[2] See specifically recommendations Nos. 4 to 68 inclusive of the *Report of the Royal Commission on the Status of Women in Canada* (Ottawa: Queen's Printer, 1970)

logging and pulp and paper processing; grain and (more recently) seed production, and cattle raising, influence the composition of the prairie labour force; and the mineral industries exert location-specific pressures on the labour force. On the other hand, the fast-growing urban areas, where both labour and capital are concentrated, are the centres of secondary development and the rapid growth of the service industries. Over 35 per cent of Canada's population is concentrated in five metropolitan areas; 55 per cent is in 21 urban centres. The primary industries of the rural areas, once labour-intensive, are now moving via technological change to more capital-intensive situations, thus reinforcing the movement to the urban centres.

UNEMPLOYMENT

The goal of "full employment" has long been of concern to Canadian governments, and since 1946 a major statistical effort towards the measurement of employment and unemployment has been maintained in Canada.

Perceptions of what constitutes full employment have varied at different times and in different places. One view has been that in typical Canadian economic circumstances a rate of unemployment lower than three per cent could not be expected over a long period of time. Others have suggested that an even higher rate would be realistic as a long-term goal. Over the past 20 years the unemployment rate in Canada has rarely been below four per cent.

The geographical distribution of unemployment, illustrated below, is an indicator of Canadian regional problems. Quebec and the Atlantic provinces have consistently higher unemployment rates than Ontario. Incidence also varies with age and sex, with teenagers (of both sexes) being hardest hit, while men aged 25 to 64 have relatively low rates at all times, and the unemployment rate among women in Canada is lower than for men – the opposite of the experience in most industrialized countries. Education is another main factor: the largest numbers of the Canadian unemployed are those with the least education, and their numbers are concentrated among labourers and unskilled workers. The proportion of unemployed who are heads of family units has fallen in recent years. While almost half the unemployed are out of work from one to three months, over the 1970-73 period there was an increase in the number of unemployed out of work for more than six months.

Other aspects of unemployment particularly relevant in Canada arise from mismatches between labour supply and labour demand, in terms of both qualifications and area. Manpower training and manpower mobility programs have been established to mitigate these problems.

Job Vacancy Survey results show that since 1971 job vacancies are increasingly concentrated in the manufacturing and service industries. Geographically, Ontario has had the most vacancies over the past three years, while in the Atlantic region, where the unemployment rates are highest, the number of vacant positions has been well below that for any other region since the beginning of 1973.

The degree of hardship encountered by those unable to find work is hard to assess because of its relationship to the previous standard of living experienced by the individual and that individual's subjective judgment of the situation. Data are available on some of the income supplements to which the unemployed have access and these can be related to current prices of such staples as housing and food. These data, however, cannot very easily be related even to objective standards of deprivation.

Closely related to the problems of unemployment are those of underemployment, which can be either "visible" or "disguised". The former includes involuntary part-time workers and can be measured with relative ease. "Disguised" underemployment, in which a person is working at less than his or her productive capacity, is much more difficult to capture statistically.

"Discouraged workers" – those who have withdrawn from the labour force because they believe jobs are unavailable – can be counted, although at present only those volunteering this information to the labour force survey are included in this category.

QUALITY OF WORKING LIFE

PAY AND FRINGE BENEFITS

Monetary compensation of the Canadian worker has improved steadily and impressively over the past three decades. It is difficult to choose any single statistic to represent this progress, but the most comprehensive series is the industrial composite of wages and salaries in Canada based on large establishments (employing 20 or more people but excluding agriculture, fishing, trapping, public administration, defence, domestic service, health and education). In current (actual) dollars, average weekly earnings (industrial composite) went up almost six-fold between 1941 and 1972, rising from $26.65 to $149.00. More than half of this increase, however, was offset by the reduced purchasing power of the dollar as measured by the Consumer Price Index.

The provincial variations in these weekly earnings (industrial composite) are quite marked. The 1972 annual average ranged from $101.02 in Prince Edward Island to $165.08 in British Columbia. Generally, Quebec and the Atlantic provinces have lower wages than Ontario, the Prairie provinces and British Columbia.

Wage disparities could also be measured by sex, age, occupation, and educational attainment. At present, data by sex and industry only are available. They show wide disparities with respect to hourly-rated workers – in April 1973, for example, these ranged from a high of $5.65 in construction to a low of $2.23 for laundries and dry cleaners. The industry picture can be seriously distorted, however, because of variations in the proportion of non-hourly-rated salaried workers, weekly hours of work, and availability and conditions (premium pay) of overtime work.

Significant improvements have taken place in the area of fringe benefits (monetary and non-monetary). Data are now collected on the various items going to make up a wage packet and the surveys of individual industries show that employers are devoting up to 25 per cent of the total wage package to monetary rewards other than those for straight time worked.

HOURS OF WORK

The Canadian work week has diminished dramatically since the Second World War. Today almost 78 per cent of the labour force works 44 hours or less per week, compared with 52 per cent in 1950. Although most agricultural workers still work long hours (59 per cent over 45 hours per week), there has been a drop in hours worked over the past 20 years even in this area.

Some new work-time experiments now are attracting attention. Some firms are trying a four-day week (though maintaining some 35 hours per week), while others are allowing employees to select some proportion of their work time, provided that a stated minimum number of hours are worked. The measures of weekly hours worked do not, of course, properly reflect the "work" year, generally reduced by increased vacations, statutory holidays, and sick and special leave. Nor do the weekly hours data capture those who find it necessary to take a second job or work overtime on a regular basis.

VACATIONS AND PAID HOLIDAYS

The number of paid holidays and vacations have increased over the past 50 years throughout Canada. Most provinces have legislation that grants two weeks paid vacation.[3] There are no definite standards concerning paid holidays, but most employees in Canada today can expect a minimum of nine statutory holidays each year. In this respect, there is a tendency for those employed by governments and large firms to fare better than those who are self-employed or working for smaller concerns. Closely allied to the subject of vacations is the academic concept of sabbatical leave which now is being seriously considered in other spheres. At this early stage, no statistics exist on this development.

[3]The exceptions being Prince Edward Island and Ontario with a minimum of one week (rising with length of service).

In spite of widespread impressions about the dilution of the work ethic, there are not many studies exploring people's attitudes and opinions on this. In a study of U.S. workers conducted in 1960 by Weiss and Kahn, it was found that 80 per cent of male workers would continue to work even if they were not under economic compulsion to do so. But a 1969 survey reported a reduction in this proportion to 73.3 per cent.[4] There are no Canadian studies to confirm (or deny) such a trend here. The discussions regarding the dilution of the work ethic have concentrated attention on the importance of making work rewarding and pleasant.

The importance of job-related satisfaction is now widely recognized by government and management, as well as unions.[5] For instance, both management and unions appear to be concerned about the symptoms of dissatisfaction on the assembly line. Much of the concern relates to monotony and boredom associated with repetitive tasks (the so-called "blue collar blues"), although pressures and tensions generated by high-level occupations, such as managerial and professional jobs, are also recognized.[6] It would, however, be a mistake to think that the so-called white collar and professional workers, and even managers and executives, are free from such maladies as boredom and monotony, or that blue collar workers are not subject to pressures of competition, fear of failure, and nervous tension.

One can separate extrinsic from intrinsic elements of job satisfaction. Extrinsic satisfaction is independent of the contents of the particular job and depends upon such general factors as pay, fringe benefits and work environment. Intrinsic satisfaction, on the other hand, is specific to the job content and depends upon such factors as monotony, challenge, accomplishment, and the usefulness of the job performed. Work is just beginning on the complex problems of measuring intrinsic satisfactions.

Data on job satisfaction in this chapter have been reproduced from a study by Jan J. Loubser in 1968. The findings, which include measures of both intrinsic and extrinsic aspects, appear to indicate a reasonably high level of overall job satisfaction, though with marked variations among industries and for different aspects of the job. The conclusions of the study are based, however, on a very small sample and may already have become outdated. There have been recent large-scale surveys in the United States that suggest increased

[4]*Survey of Working Conditions* Survey Research Center, University of Michigan, November 1970, p. 4

[5]See "Measuring the Quality of Working Life", Dept. of Labour; a report on a seminar on that topic held in Ottawa on March 19 and 20, 1973.

[6]*Work in America,* Report of a Special Task Force to the Secretary of Health, Education and Welfare, U.S. Dept. of Health, Education and Welfare (Boston: M.I.T. Press, 1973)

worker alienation. The findings have resulted in a lively controversy on the presence and magnitude of worker dissatisfaction and alienation.[7] These studies point out the possibility of measurement in the delicate area of intrinsic satisfaction through techniques pioneered by the Michigan Survey Research Center. The Faculty of Administrative Studies at York University has undertaken to launch a large-scale study on quality of employment in Canada. It is hoped that this will be followed by further Canadian investigations.

PHYSICAL CONDITIONS

While the rewards of work are of prime importance, the conditions within which work is carried out are of concern to every worker. In Canada there are no national standards on physical surroundings, safety precautions, and special amenities available to workers. Each province has legislation concerning industrial safety including noise levels, spatial displacement of personnel, machine protections, protective clothing, noxious gases, and material emissions. Subsidized cafeterias, recreational facilities, day-care centres, sports programs and other employer-sponsored facilities are made available on a voluntary basis by some employers, but no data on these are available.

LABOUR RELATIONS

Union membership in Canada has grown from 133,000 in 1911 to over 2,250,000 today, and organized labour now constitutes over one-third of Canada's paid, non-agricultural workers.

Several factors set the Canadian labour scene apart from those of other countries. Because Canada is a federal state with labour concerns falling mainly within provincial jurisdictions, the federal government has limited powers, compared with the national governments of countries such as Sweden, Britain, and even the United States. Secondly, union participation varies widely across Canada according to industrial structure, regional attitudes, and other factors. Finally, some 60 per cent of union members in Canada belong to international unions with headquarters in the United States.

The industrial composition of union membership has also changed significantly over the years in Canada. The most marked changes have been the decline in membership in the railway unions, and the growth of public administration unions. The traditional view of organized labour only occurring among the blue collar workers of primary and secondary industry has been altered over the past decade as office employees (particularly in public service) and other white collar workers and professional employees have become unionized.

[7] Sheppard, Harold L. and Herrick, Neal Q., *Where Have All the Robots Gone, Worker Dissatisfaction in the Seventies.* (New York: Free Press, 1972)

CONCLUSIONS

While in many respects the Canadian work scene is well documented statistically, there is a paucity of data on some of the newer areas of concern. Certain aspects of the quality of working life are particularly difficult to measure. The problems of varying provincial legislative standards and the value judgments inherent as to what constitute "good" conditions make statistical appraisal a monumental undertaking.

CONCEPTS AND DEFINITIONS

Four primary sources of statistical material are used in this chapter:

1. The Monthly Labour Force Survey
2. The Decennial Census
3. The Annual Survey of Working Conditions in Canadian Industry
4. Job Vacancy Survey

MONTHLY LABOUR FORCE SURVEY

This is the most important source of regular labour force data in Canada. The survey covers the civilian non-institutional population aged 14 years and over. Each month a sample of 30,000 households representing a cross-section of the Canadian population is asked by trained enumerators to answer questions relating to the labour force experience of each member of the household aged 14 years and over during the week preceding the survey. Supplementary questions are sometimes added to the regular questionnaire to elicit information about various socio-economic aspects of the labour force. Key definitions follow:

Labour Force means all those persons reported to have either worked (employed) or looked for work (unemployed) during the reference week for pay or profit.

Employed refers to any person aged 14 years or over who worked for "pay, profit or related business ends" at any time during the reference week. A person who both worked and looked for work during the week is classified as employed. So, too, is the person who had a job but did not work or look for work in the reference week.

Unemployed means "without work and looking for work" during the reference week. However, the survey does not ask any questions on specific job-seeking activity or on the current availability of the unemployed person for work.

The Unemployment Rate is the percentage of the labour force that is unemployed.

DECENNIAL CENSUS

The labour force data in this report pertaining to the period before 1951 have been derived from the decennial population censuses and exclude the province of Newfoundland, but include members of the armed forces, residents of the Yukon and Northwest Territories, and Indians on reserves. Although the census data were adjusted to conform to the Labour Force Survey definitions, the two sets of statistics are not strictly comparable.

THE ANNUAL SURVEY OF WORKING CONDITIONS IN CANADIAN INDUSTRY

This survey is designed to cover firms having 20 or more employees in any of the preceding 12 months, and is thus not representative of the working conditions in smaller establishments. The information is separately provided for office and non-office workers. "Office" employees include supervisory, professional and technical staff, and personnel engaged in clerical, accounting, secretarial, sales, executive, and administrative activities. "Non-office" employees are those non-supervisory workers who are directly engaged in producing goods and services and the provision of maintenance and auxiliary services closely associated with production operations.

JOB VACANCY SURVEY

The figures on vacancies are estimated from a survey conducted every two weeks by Statistics Canada. Some 37,000 employers are surveyed by mail with a sub-sample (1/6) being further surveyed by interview (large firms by visit and smaller firms by phone). The survey excludes agriculture, fishing and trapping, households and non-civilians.

JOB SATISFACTION DATA

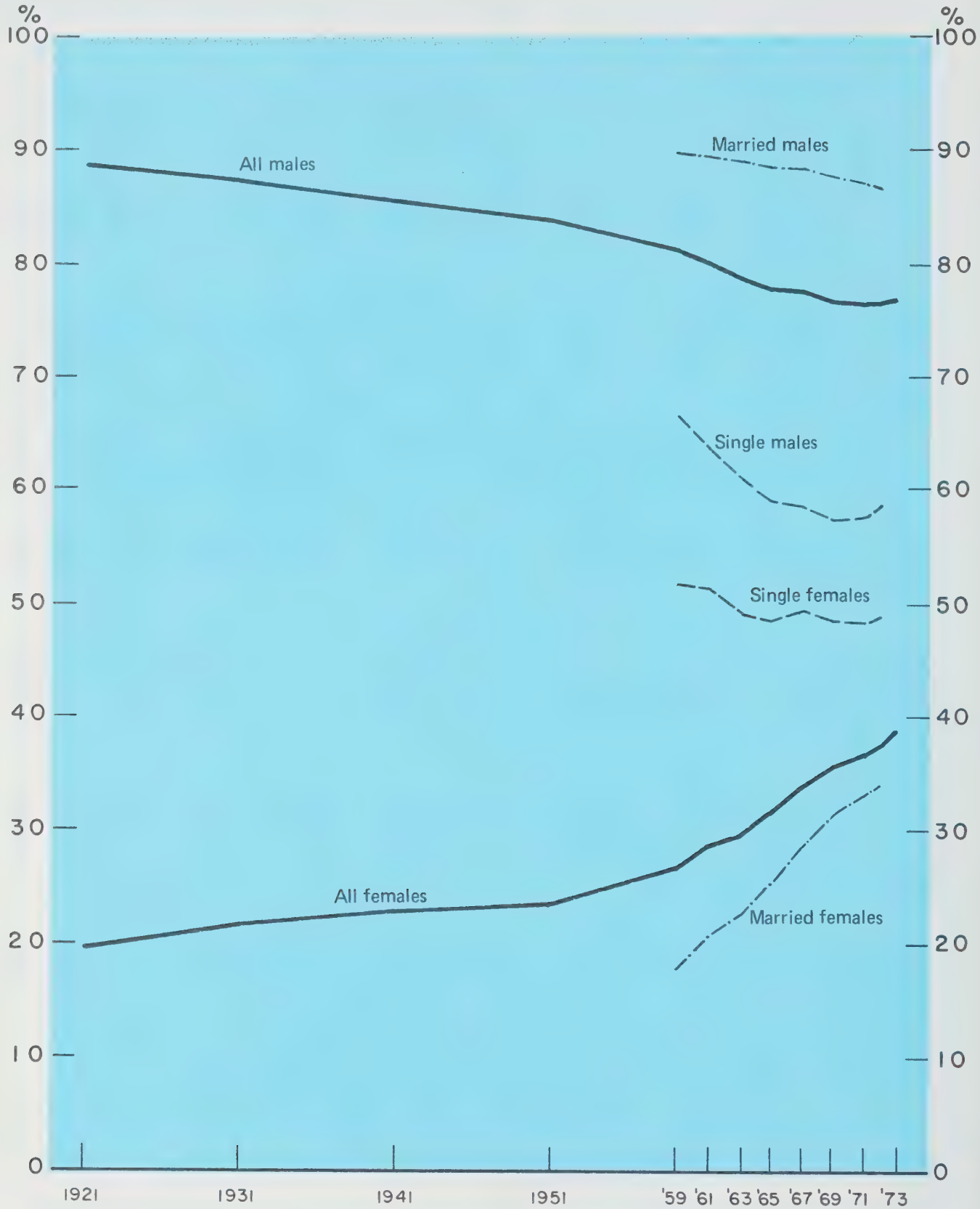
These data were taken from Study No. 12 of the Task Force on Labour Relations by J.J. Loubser and M. Fullan entitled *Industrial Conversion and Workers' Attitudes to Change in Different Industries.* A sample of 2,832 male hourly-rated workers in 16 firms selected from six industries (automobile, chemical, electrical products, oil, printing and steel) was used.

Table 6.1
LABOUR FORCE BY SEX, SHOWING PARTICIPATION RATES

	POPULATION 14 YEARS AND OVER			LABOUR FORCE			PARTICIPATION RATE		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
	thousands			thousands			per cent		
1901	1,829	1,729	3,558	1,606	279	1,885	87.8	16.1	53.0
1911	2,629	2,245	4,874	2,381	418	2,799	90.6	18.6	57.4
1921	3,055	2,820	5,875	2,742	561	3,303	89.8	19.9	56.2
1931	3,775	3,452	7,227	3,291	751	4,042	87.2	21.8	55.9
1941	4,338	4,097	8,435	3,713	939	4,652	85.6	22.9	55.2
1951	4,857	4,874	9,732	4,076	1,147	5,223	83.9	23.5	53.7
1956	5,398	5,409	10,807	4,437	1,346	5,782	82.2	24.9	53.5
1961	5,991	6,061	12,053	4,782	1,739	6,521	79.8	28.7	54.1
1966	6,678	6,796	13,475	5,193	2,227	7,420	77.8	32.8	55.1
1971	7,622	7,766	15,388	5,800	2,831	8,631	76.1	36.5	56.1
1972	7,795	7,952	15,747	5,938	2,953	8,891	76.2	37.1	56.5
1973	7,978	8,146	16,125	6,127	3,152	9,279	76.8	38.7	57.5

Notes: *1. Newfoundland not included 1901 to 1941.*
2. Figures for 1901 to 1941 are adjusted to include residents of the Yukon and Northwest Territories, Indians on reserves, and members of the armed forces but exclude inmates of institutions.
3. Current Labour Force Survey definitions apply from 1951 to 1973 and these figures include Newfoundland.

Chart 6.2
PARTICIPATION RATES BY SEX AND MARITAL STATUS



Newfoundland not included for 1921 to 1941.

Note: *Figures for 1921 to 1941 adjusted to include residents of Yukon and Northwest Territories, Indians living on reserves and members of the Armed Forces, and to exclude inmates of institutions.*

Chart 6.3
PARTICIPATION RATES BY AGE GROUP

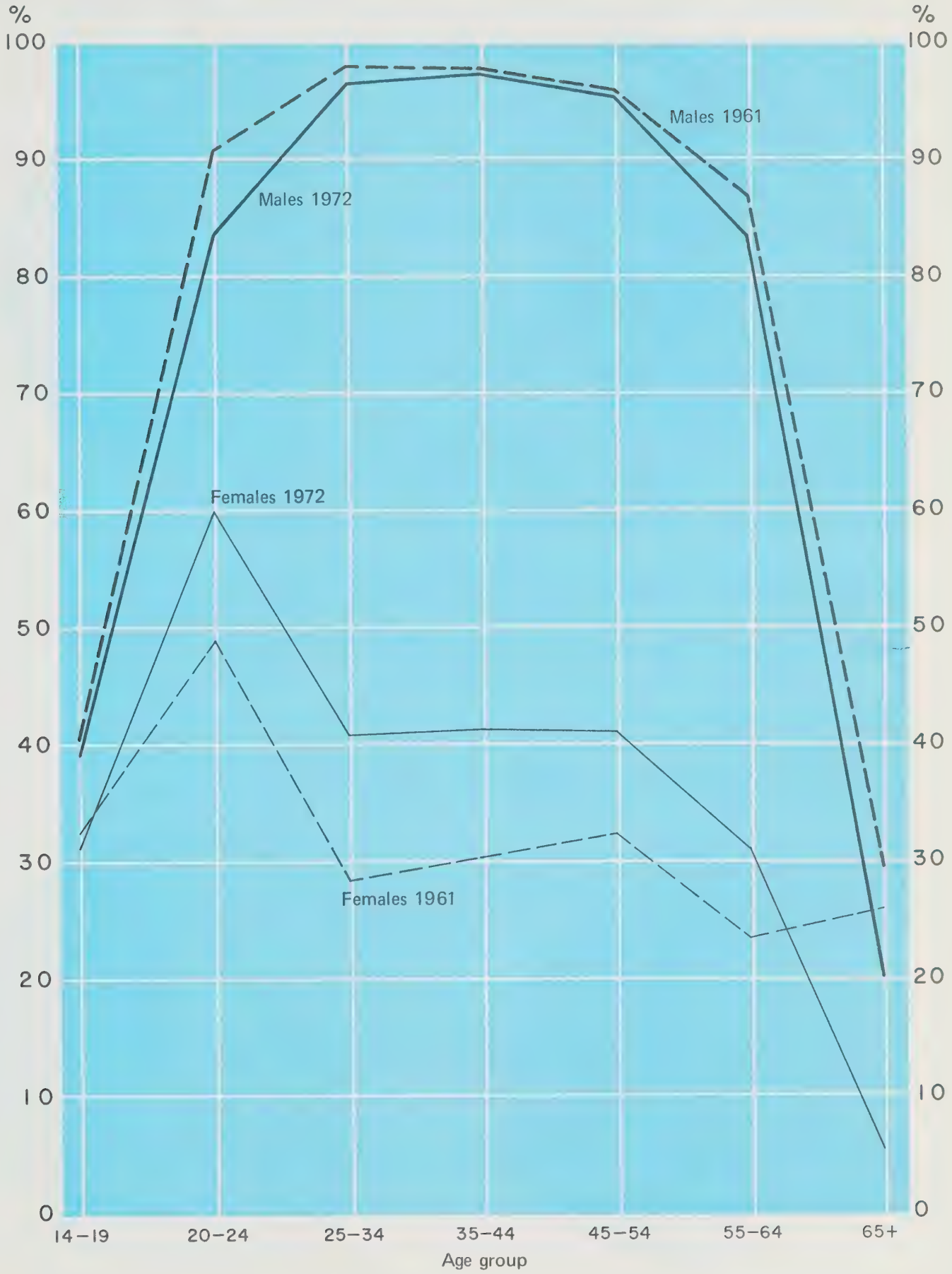


Chart 6.4
SEX AND AGE COMPOSITION OF THE LABOUR FORCE

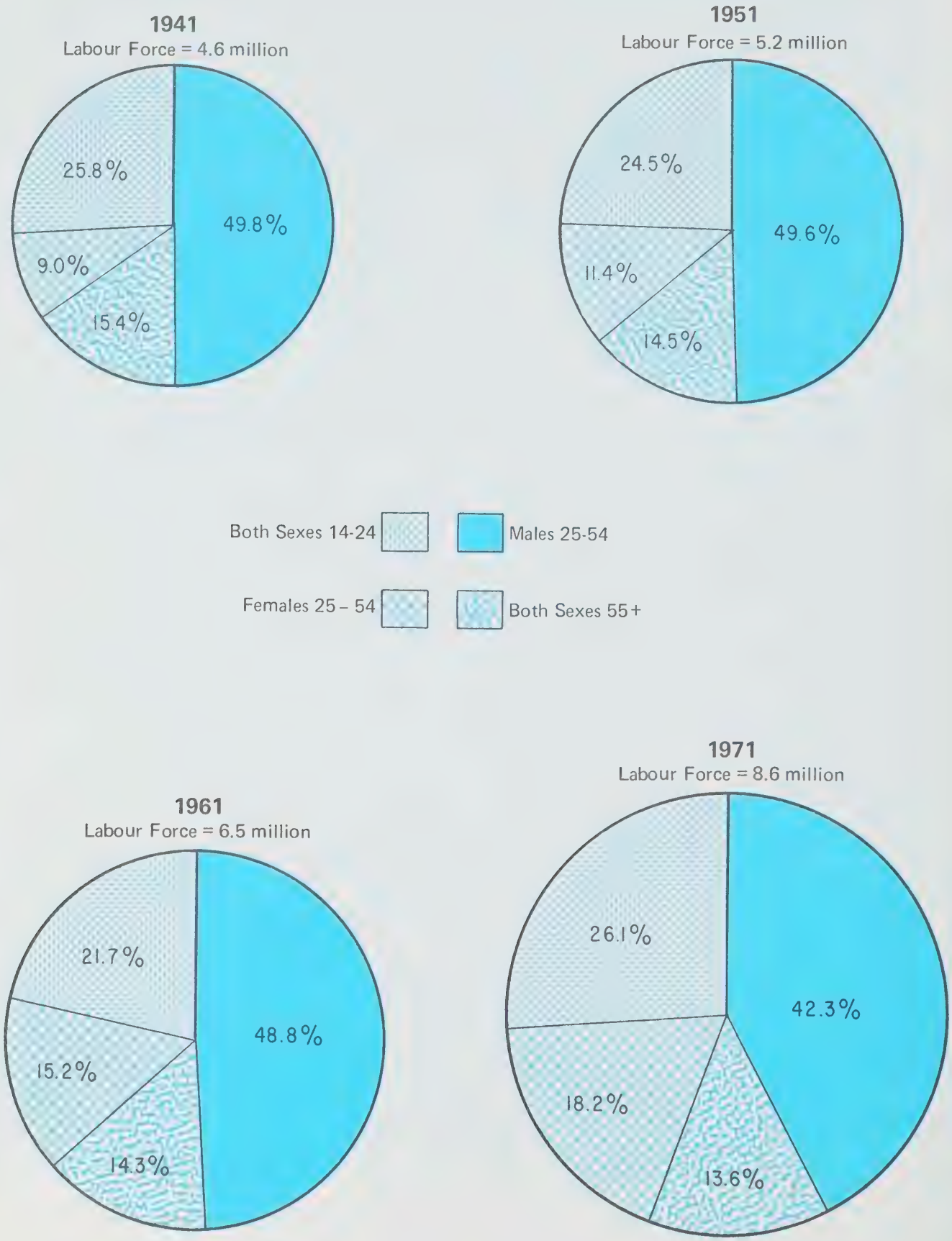


Chart 6.5
WEEKS EMPLOYED IN 1970, BY AGE, SEX AND MARITAL STATUS

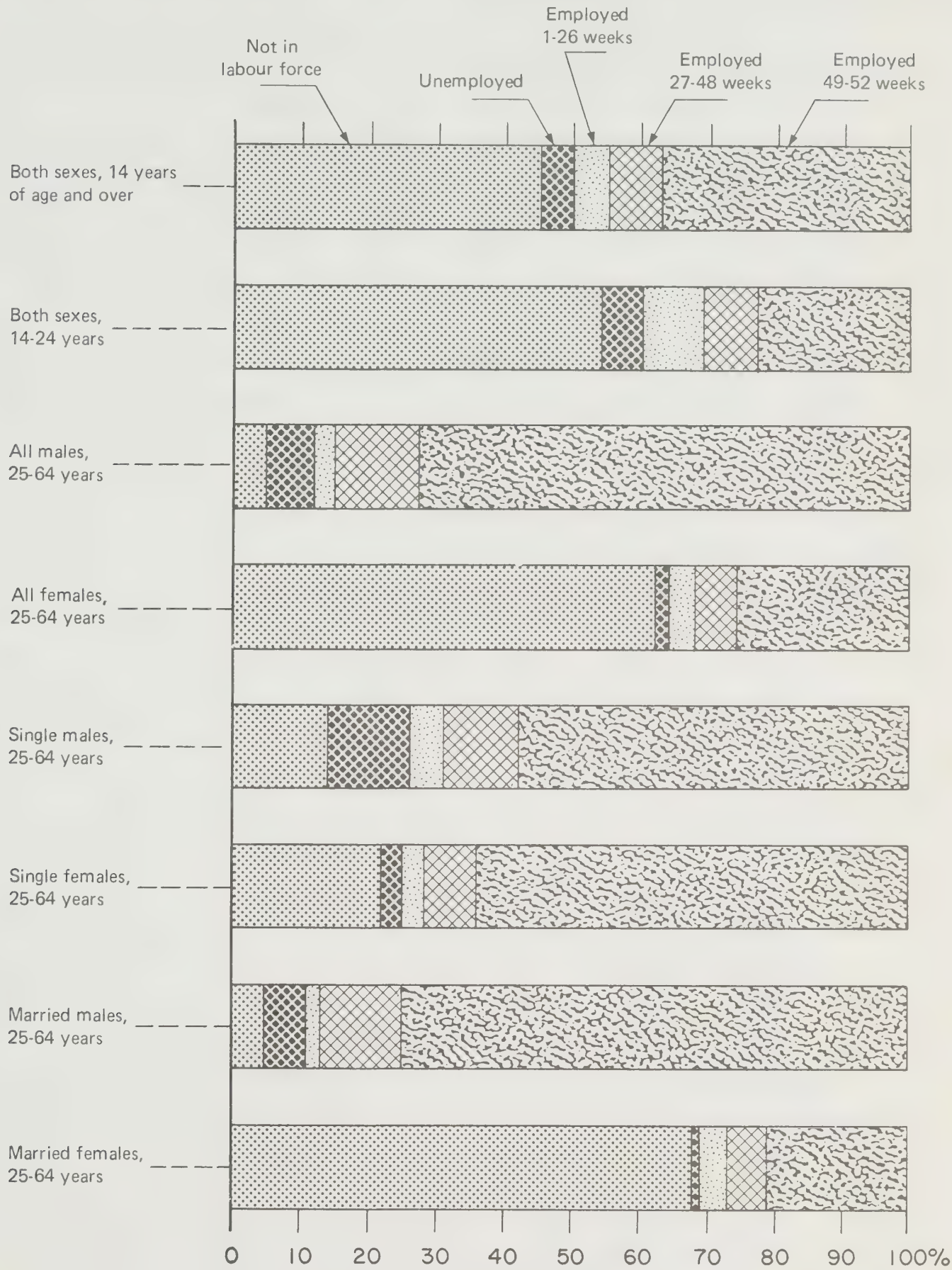


Table 6.6
THE EMPLOYED BY CLASS OF WORKER

	Paid workers	SELF-EMPLOYED		Unpaid family workers	Total employed
		On own account	Employers		
	annual averages — estimates in thousands				
1957	4,540	667	318	206	5,731
1961	4,911	607	347	190	6,055
1966	6,096	541	344	171	7,152
1971	7,029	517	344	189	8,079
1972	7,310	497	346	176	8,329

Table 6.7
PROPORTION OF WOMEN IN MAJOR OCCUPATIONAL GROUPS

	1951	1961	1971
	percentage of total employment in group		
Managerial	11.1	11.1	9.3
Professional and technical	35.3	42.0	41.1
Clerical	56.2	62.4	72.2
Service	44.6	48.7	60.1
Transportation and communication	7.7	9.0	9.7
Farmers and farm workers	7.6	8.3	12.9
Logging, hunting and fishing	—	—	—
Mining, quarrying, etc.	—	—	—
Crafts and production process	14.6	14.6	14.1
Labourers	—	—	8.0
ALL OCCUPATIONS	22.0	27.7	33.3

Table 6.8
EMPLOYED BY OCCUPATIONAL GROUP AND SEX

	1951		1961		1971	
	Male	Female	Male	Female	Male	Female
	per cent					
Managerial	9.5	4.2	11.4	3.7	12.7	3.9
Professional and technical	5.3	10.2	7.9	15.0	12.5	17.5
Clerical	6.4	29.2	6.9	30.0	6.3	32.7
Service[1]	10.8	30.7	12.9	32.1	13.9	30.6
Transport and communication	9.5	3.2	8.5	2.2	7.2	1.6
Farmers and farm workers	22.0	6.4	14.3	3.4	8.3	2.5
Logging, hunting and fishing[2]	3.1	–	1.9	–	1.2	–
Mining, quarrying, etc.	1.4	–	1.1	–	1.1	–
Crafts and production process[3]	26.2	15.9	28.5	12.8	31.0	10.2
Labourers and unskilled	5.9	–	6.6	0.8	6.0	1.0
TOTALS	100.0	100.0	100.0	100.0	100.0	100.0
'000	3,974	1,123	4,381	1,674	5,392	2,687

1) In 1961 and 1971 includes "Sales" and "Service and recreation", in 1951 included "Commercial", "Financial" and "Service".
2) In 1961 and 1971 includes "Loggers and related" and "Fishermen, hunters and trappers", and in 1951 included "Fishing, logging and trapping".
3) In 1951 this group included "Manufacturing and mechanical" and "Construction".

Table 6.9
EMPLOYMENT BY INDUSTRY

	1951	1961	1971
	per cent		
Agriculture	18.4	11.2	6.3
Forestry	2.3	1.4	0.9
Fishing and trapping	0.6	0.3	0.3
Mining	1.5	1.3	1.6
Manufacturing	26.5	24.0	22.2
Construction	6.8	6.2	6.2
Transport, utilities and communication	8.8	9.3	8.7
Trade	14.1	16.9	16.5
Finance, insurance and real estate	3.0	3.9	4.8
Service	18.0	25.3	32.7
ALL INDUSTRIES	100.0	100.0	100.0
'000	5,097	6,055	8,078

Chart 6.10
EMPLOYMENT BY INDUSTRY AND REGION, NOVEMBER 1973

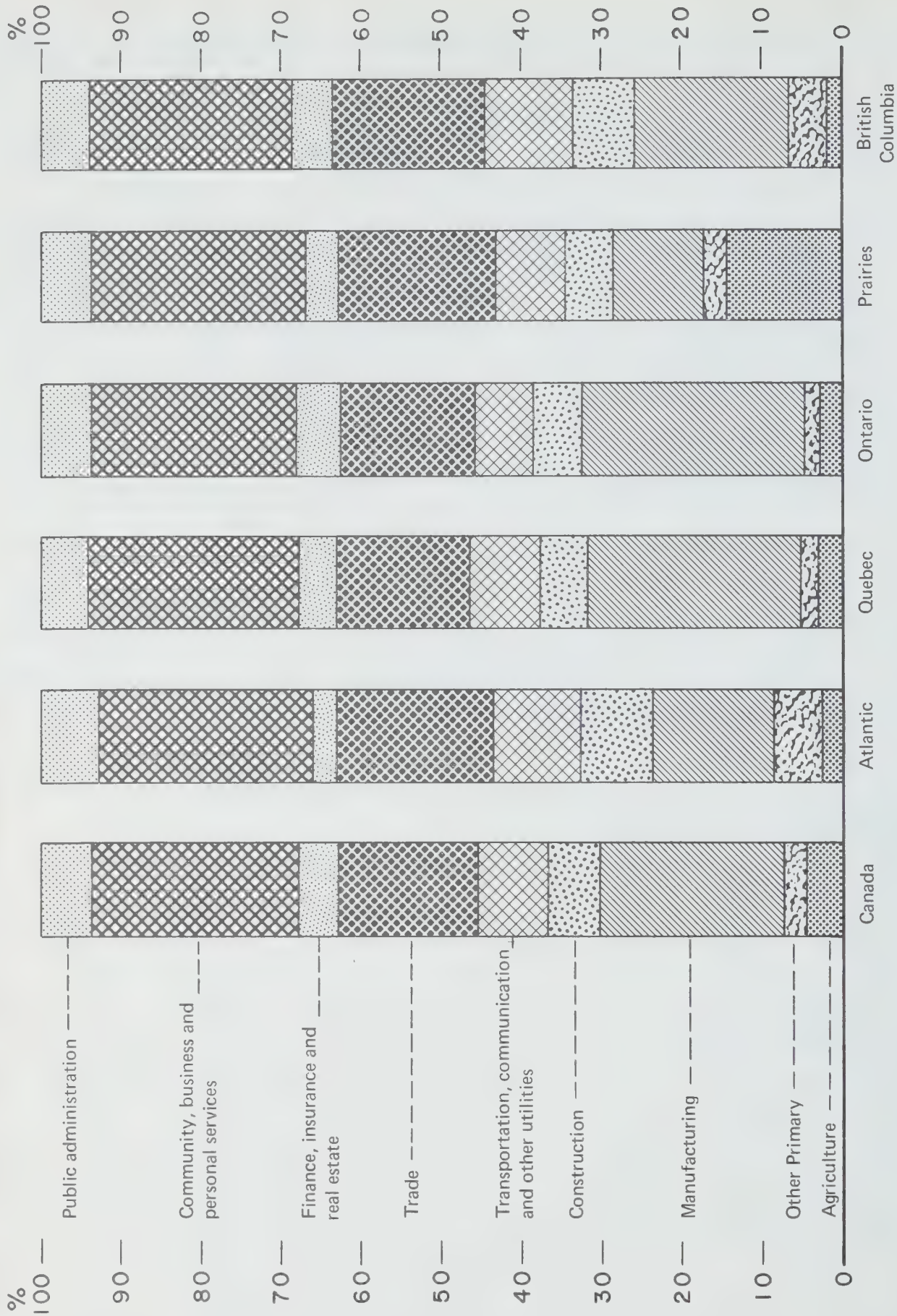


Chart 6.11
UNEMPLOYMENT RATES BY AGE

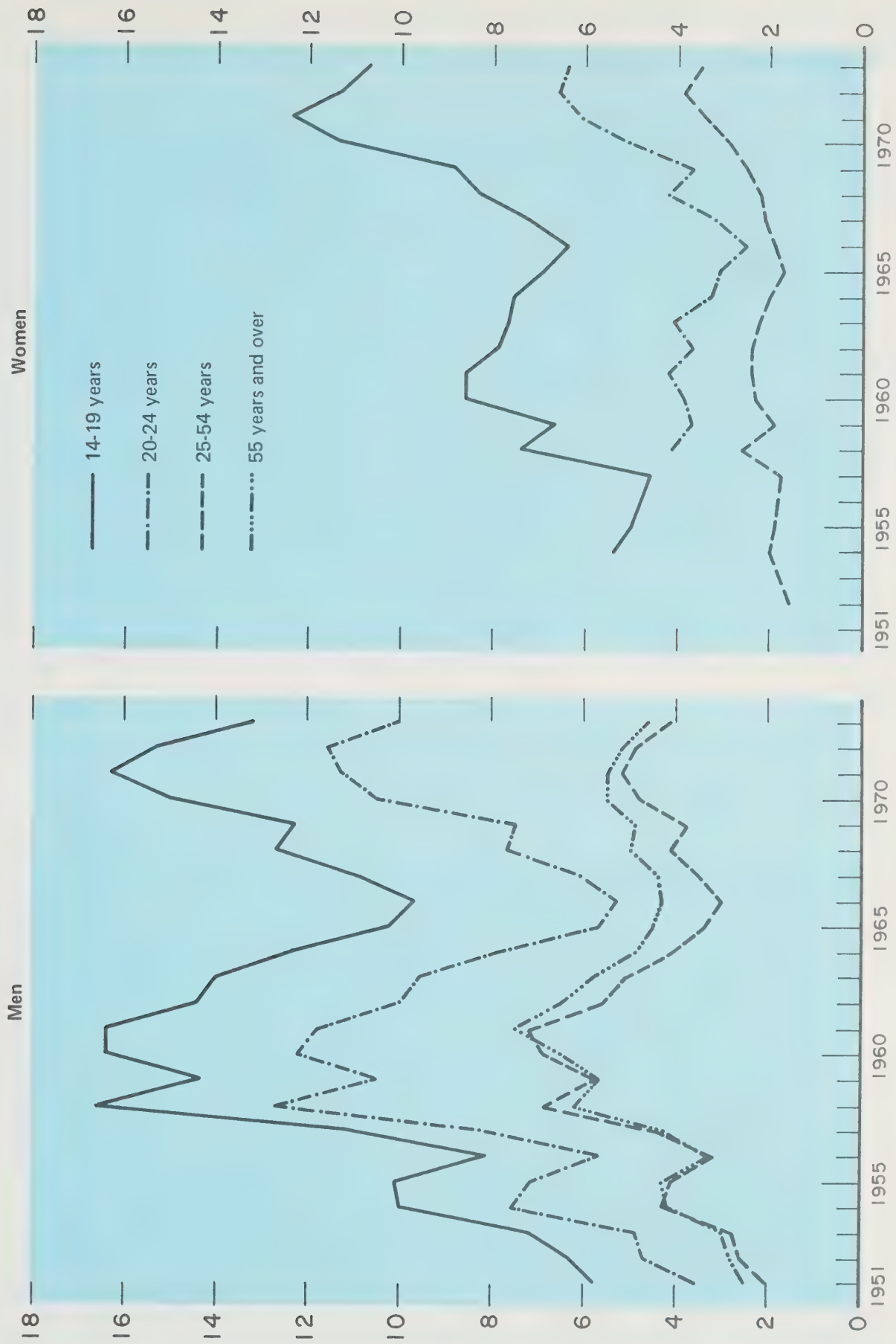


Chart 6.12
UNEMPLOYMENT RATES FOR MEN AND WOMEN

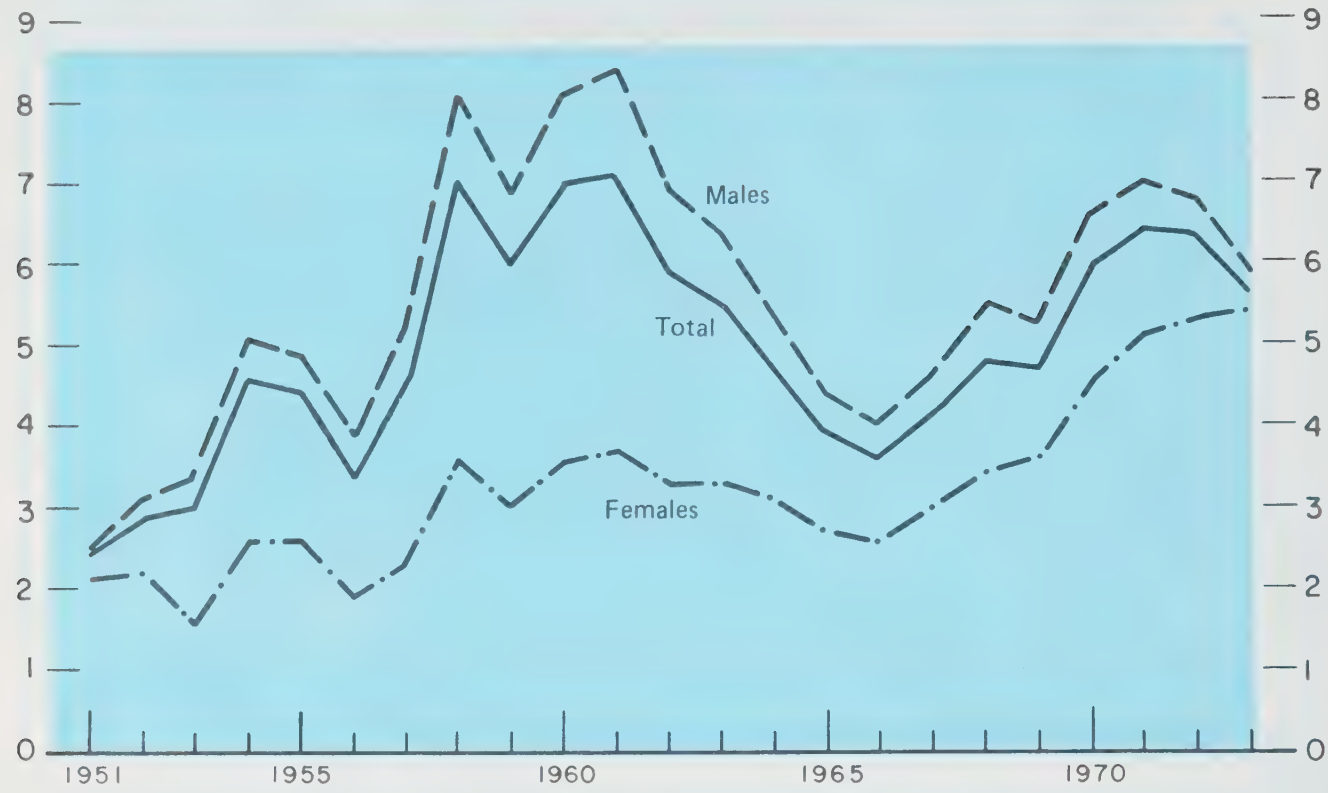


Chart 6.13
UNEMPLOYMENT RATES BY REGION

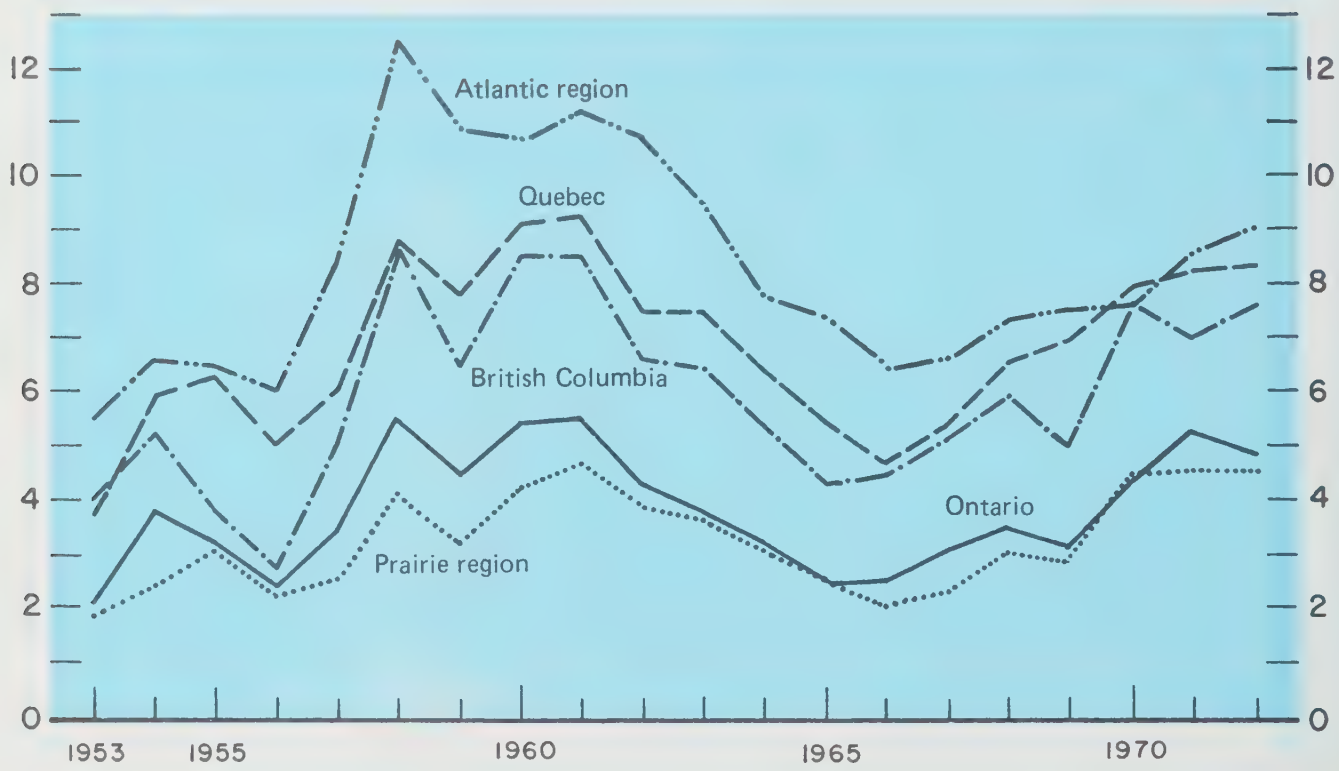


Table 6.14
UNEMPLOYMENT BY OCCUPATION[1]

	1961		1971	
	Unemployment rate	Per cent distribution of the unemployed	Unemployment rate	Per cent distribution of the unemployed
Office and professional[2]	2.5	14	2.9	20
Transportation	10.2	9	7.4	5
Service and recreation	5.6	8	5.7	11
Primary[3]	6.8	13	5.8	7
Crafts, production process and related	9.2	32	8.0	30
Labourers and unskilled (not primary)	21.7	18	16.7	13
Never worked[4]	–	7	–	13
ALL OCCUPATIONS	7.1	100	6.4	100

1) Occupational groups shown refer to the last job held before the survey period.
2) Includes managerial, professional, technical, clerical, sales and communications occupations.
3) Includes farmers, farm workers, fishermen, trappers, hunters, loggers, miners and related.
4) Comprises unemployed persons who never had a full-time civilian job lasting two weeks or more.

Chart 6.15
UNEMPLOYMENT RATES BY EDUCATIONAL ATTAINMENT

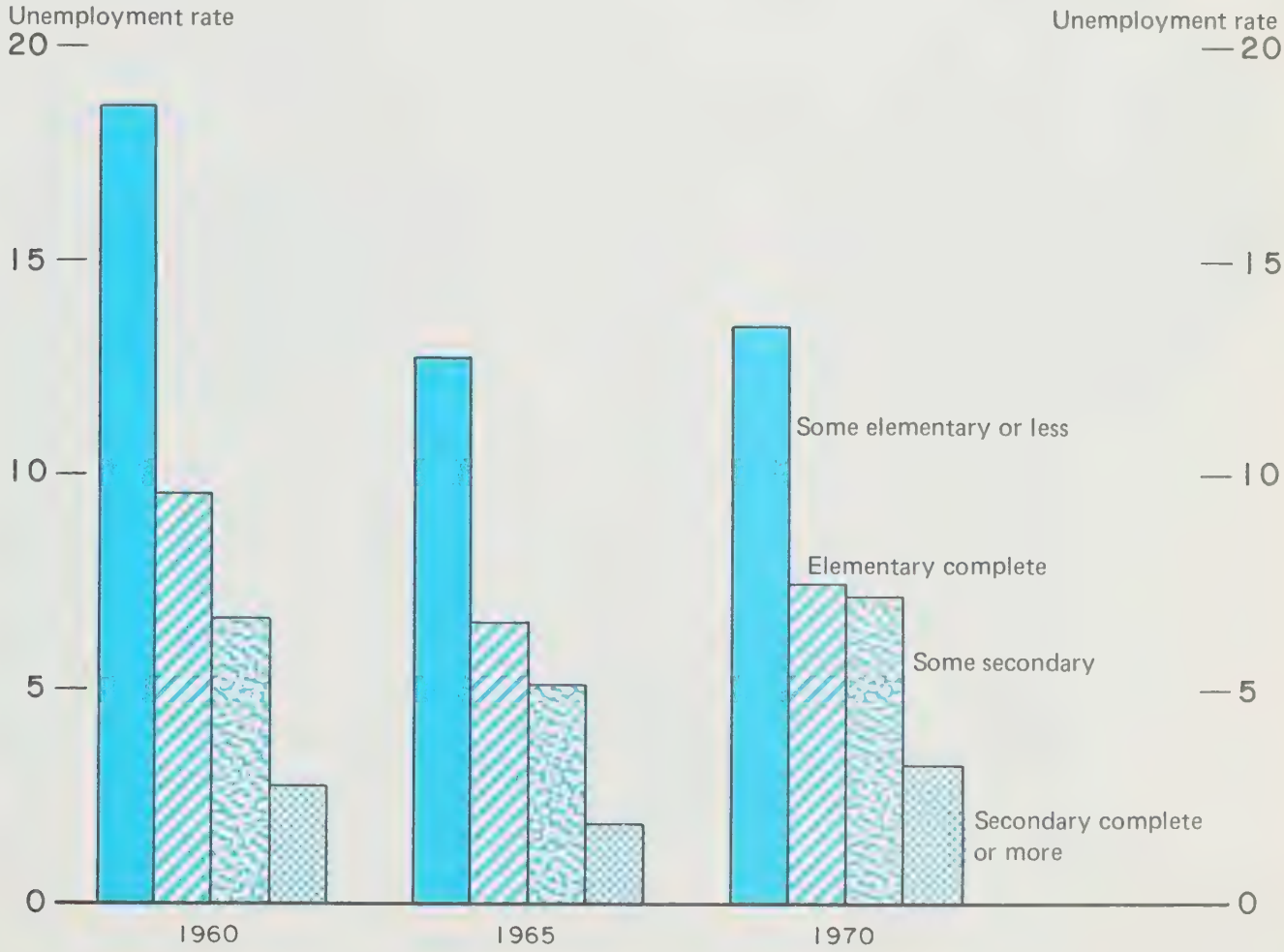


Chart 6.16
UNEMPLOYED PERSONS BY DURATION OF UNEMPLOYMENT

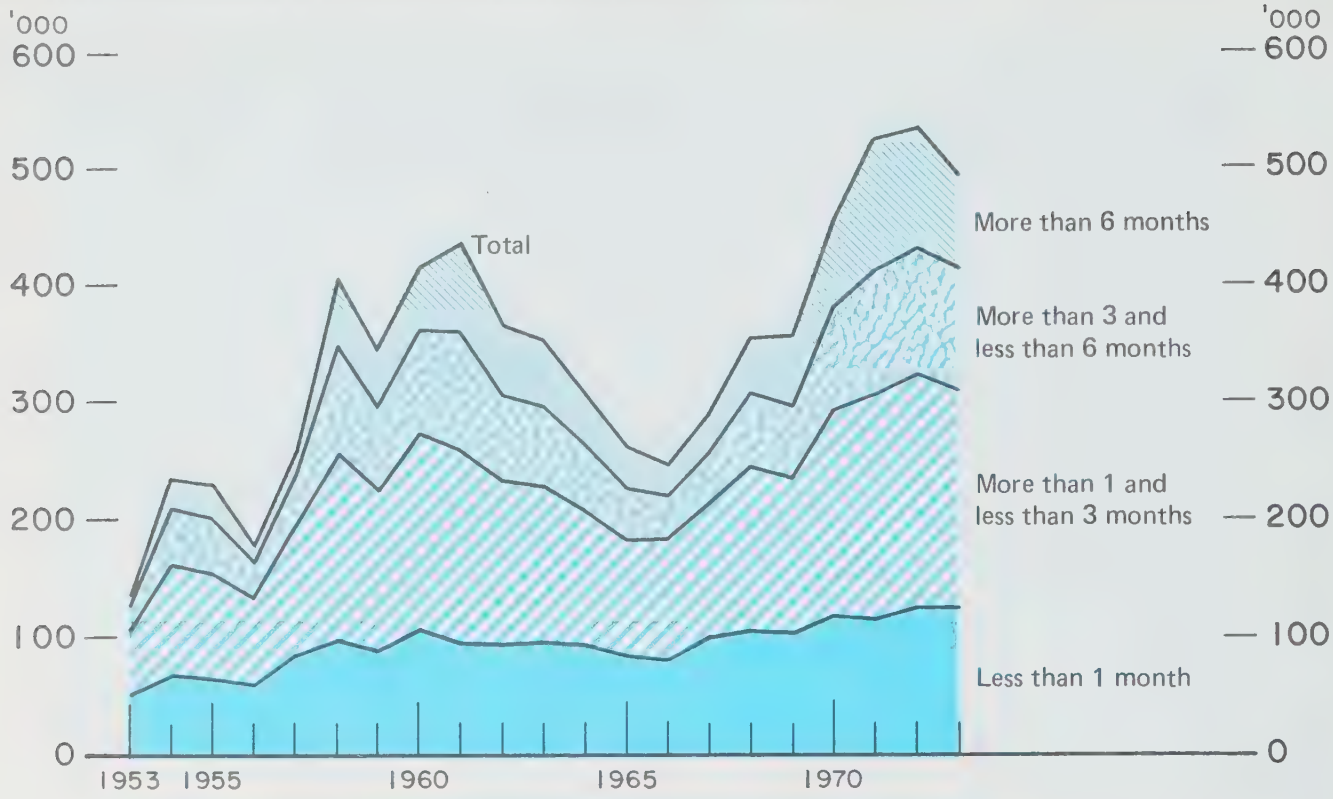


Chart 6.17
MEN AND WOMEN NOT IN THE LABOUR FORCE BY REASON

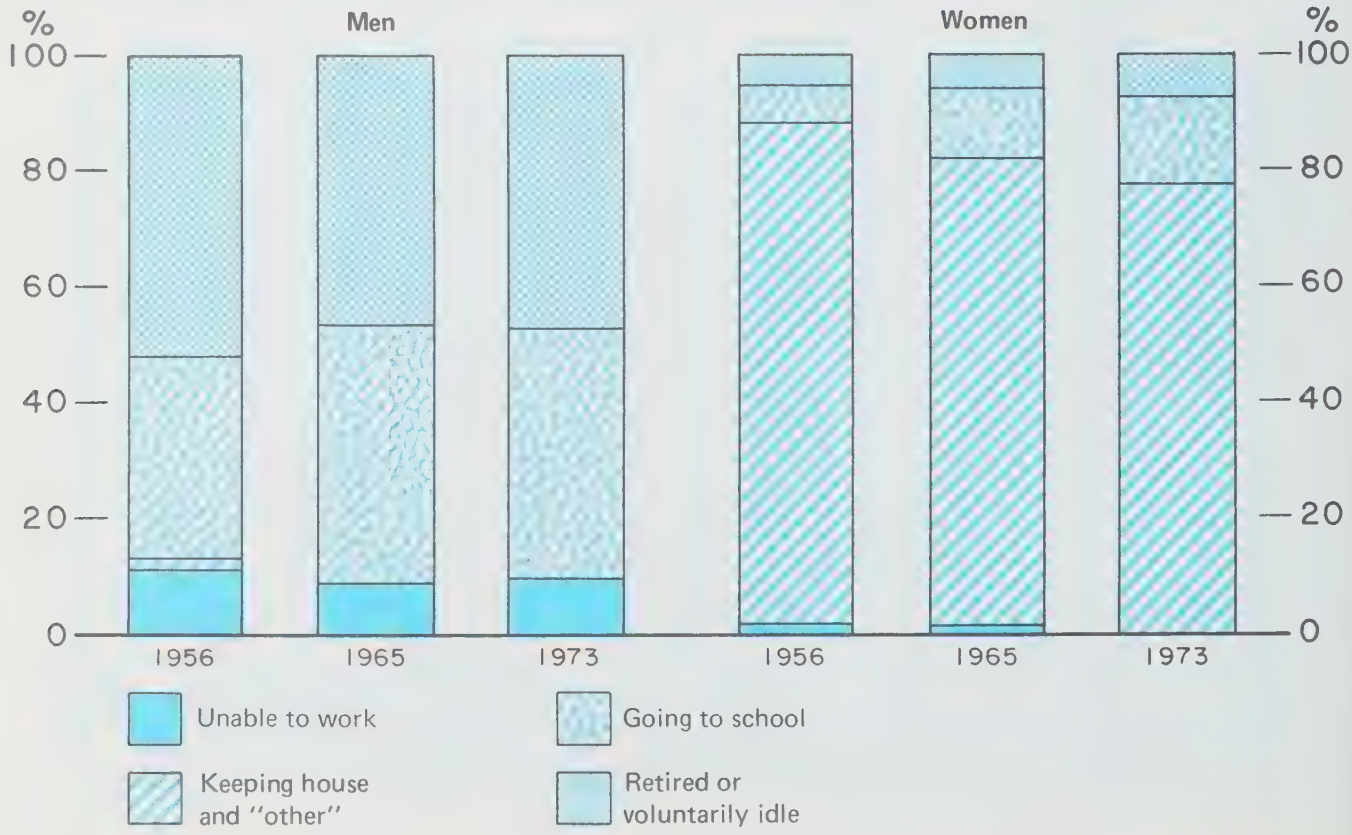


Table 6.18
FAMILY STATUS OF UNEMPLOYED PERSONS

	MEMBERS OF FAMILY UNITS			Unattached individuals[2]	Total
	Head of unit[1]	Single sons or daughters	Other relatives		
	per cent				
1961	46	34	11	9	100
1966	41	37	14	8	100
1971	37	37	16	10	100

1) The person mainly responsible for the maintenance of the unit; in families consisting of a husband and wife (with or without unmarried children), the husband is always designated as the head.
2) Person living alone or who is not related to anyone in the dwelling where he or she is living.

Chart 6.19
FAMILIES WITH UNEMPLOYMENT BY NUMBER OF OTHER MEMBERS EMPLOYED

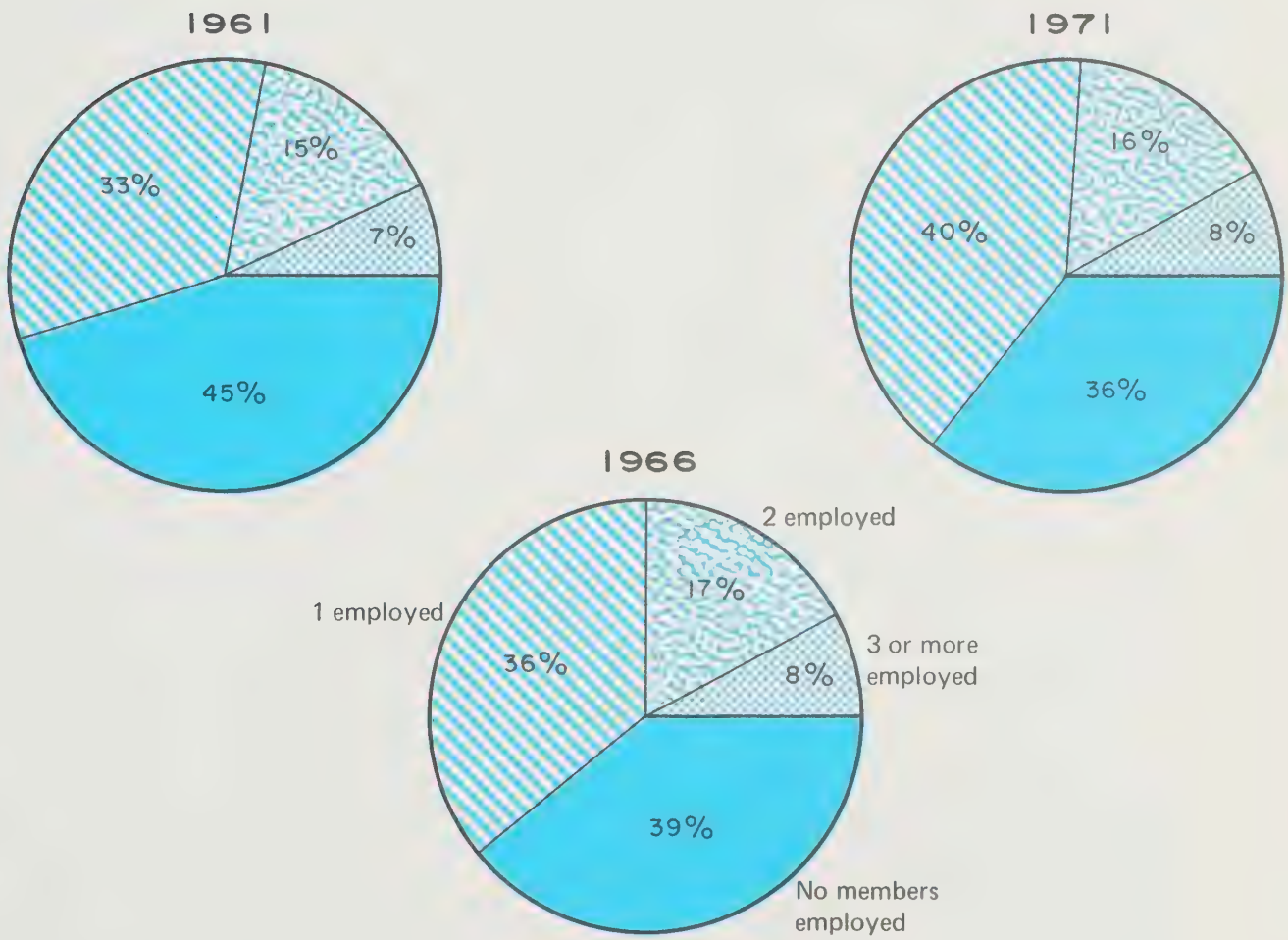


Table 6.20
WEEKLY[1] INCOMES UNDER SELECTED PROGRAMS FOR CERTAIN PROVINCES, JANUARY 1, 1974

	Prince Edward Island	New Brunswick	Quebec	Ontario	Alberta	British Columbia
			dollars			
For a single person:						
Employed at minimum wage[2]	66.00	70.00	74.00	80.00	76.00	90.00
On social assistance[3]	12.32[4]	30.74[5]	28.32	32.96	15.11[4]	32.55
Taking Canada Manpower Training course	55.00	55.00	55.00	55.00	55.00	55.00
Working on Local Initiatives Program project	100.00	100.00	100.00	100.00	100.00	100.00
On Old Age Security + Guaranteed Income Supplement	42.79	42.79	42.79	42.79	42.79	42.79
Average Unemployment Insurance Commission benefits[6]	71.09	71.09	71.09	71.09	71.09	71.09
For a couple with three children, 6, 10 and 15 years of age:[7]						
Employed at minimum wage[2]	79.95	83.95	98.18	93.95	89.72	103.95
On social assistance[3]	57.43[4]	78.83[5]	86.44	97.70	62.09[4]	106.97
Taking Canada Manpower Training course	101.95	101.95	119.18	108.95	108.72	108.95
Working on Local Initiatives Program project	113.95	113.95	124.18	113.95	113.72	113.95
On Old Age Security + Guaranteed Income Supplement	81.64	81.64	81.64	81.64	81.64	81.64
Average Unemployment Insurance Commission benefits[6]	85.04	85.04	95.27	85.04	84.81	85.04

1) Monthly rates have been divided by 4.3.
2) A 40-hour week is assumed.
3) Latest data available is as of November 1973.
4) Plus fuel, utilities and rent.
5) Plus fuel.
6) Average benefit payment as of December 1973.
7) Husband in labour force, wife keeping house and family allowances included for all programs except Old Age Security + Guaranteed Income Supplement.

Table 6.21
JOB VACANCIES IN SELECTED OCCUPATIONAL GROUPS (ANNUAL AVERAGES)

	1971	1972	1973
		thousands	
CANADA:			
All occupations	32.6	58.3	78.0
ATLANTIC:			
All occupations	3.3	4.5	5.6
QUEBEC:			
All occupations	6.6	14.7	20.5
Clerical and related	0.9	1.9	2.5
Sales	1.2	1.6	1.5
Service	0.7	1.8	2.3
Product fabricating, assembling and repair	1.2	3.7	4.1
ONTARIO:			
All occupations	13.1	23.7	30.2
Managerial, administrative and related	0.5	0.8	1.0
Natural sciences, engineering, mathematics	0.8	0.9	2.0
Medicine and health	0.8	0.9	1.3
Clerical and related	2.4	3.5	4.3
Sales	1.7	2.8	2.4
Service	1.0	2.7	3.4
Machining and related	0.6	1.9	3.2
Product fabricating, assembly and repair	1.7	4.3	5.0
Construction trades	0.9	1.4	1.6
PRAIRIES:[1]			
All occupations	5.6	10.4	13.0
Clerical and related	0.8	1.2	1.6
Sales	0.7	1.2	1.3
Service	0.5	1.2	2.1
Product fabricating, assembly and repair	1.2	1.9	2.1
PACIFIC:[2]			
All occupations	3.8	5.0	8.4
Clerical and related	0.5	0.8	1.4
Service	0.5	0.9	1.2
Product fabricating, assembly and repair	0.5	0.9	1.1

1) Includes Northwest Territories.
2) Includes Yukon Territory.

Chart 6.22
JOB VACANCIES BY OCCUPATIONAL GROUP

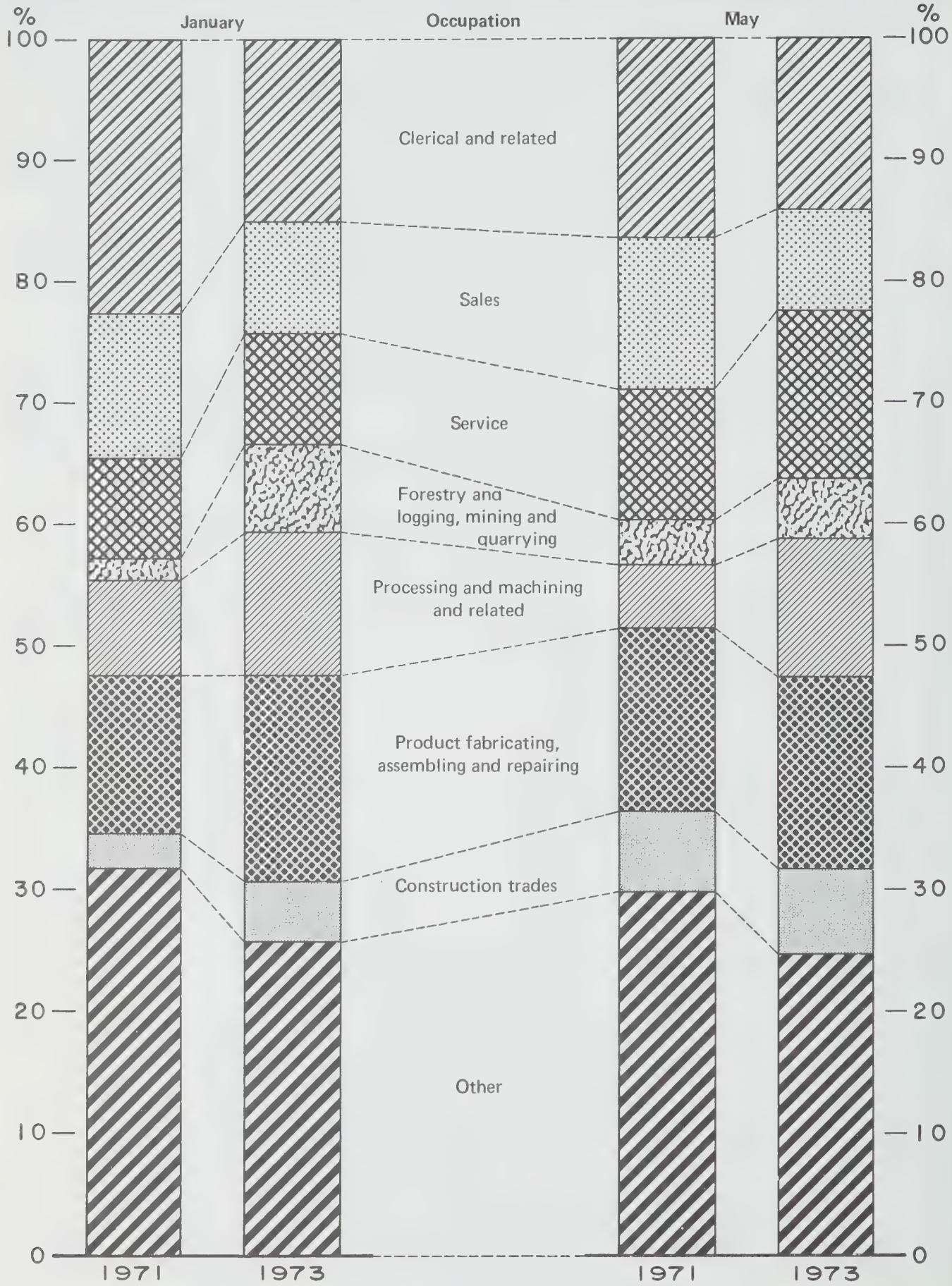
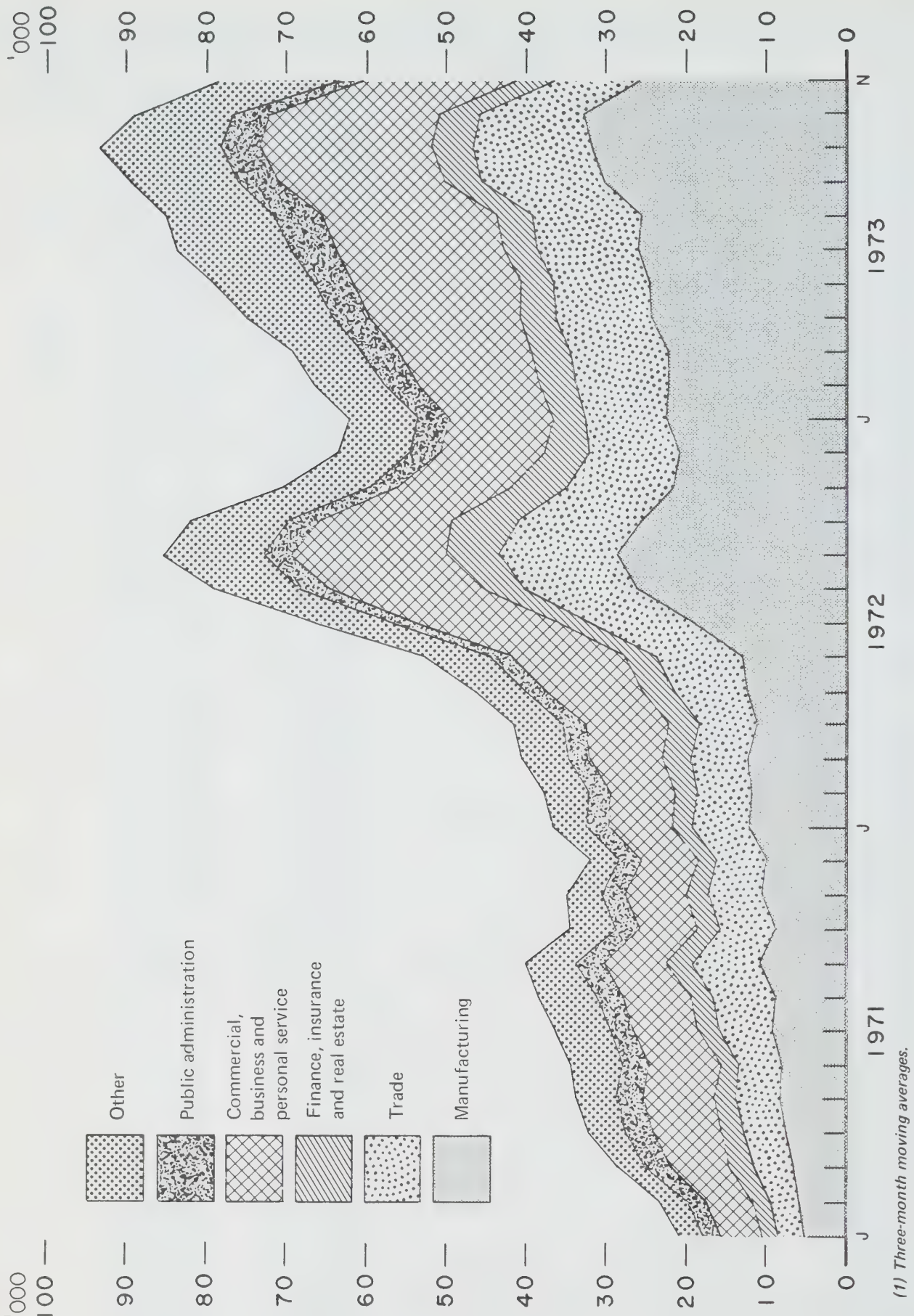


Table 6.23
JOB VACANCIES IN SELECTED INDUSTRIAL GROUPS (ANNUAL AVERAGES)

	1971	1972	1973
		thousands	
CANADA:			
All industries	32.6	58.3	78.1
ATLANTIC:			
All industries	3.4	4.5	5.7
Manufacturing	0.6	1.0	1.8
Trade	0.6	1.0	1.0
Community, business and personal services	1.1	1.0	1.2
QUEBEC:			
All industries	6.6	14.7	20.6
Manufacturing	2.2	5.4	8.6
Trade	1.0	2.4	2.8
Finance, insurance and real estate	0.9	1.0	1.2
Community, business and personal services	1.5	3.2	4.6
ONTARIO:			
All industries	13.1	23.7	30.2
Manufacturing	3.4	8.8	11.5
Construction	0.7	1.2	2.0
Transportation and communication	0.8	0.8	1.2
Trade	2.4	4.0	4.6
Finance, insurance and real estate	1.1	2.2	1.8
Community, business and personal services	3.1	5.2	7.2
Public administration and defence	1.2	1.2	1.6
PRAIRIE:[1]			
All industries	5.7	10.4	13.1
Manufacturing	1.5	1.7	2.3
Trade	1.3	2.5	2.4
Community, business and personal services	1.3	2.4	3.7
Public administration and defence	0.5	0.7	1.3
PACIFIC:[2]			
All industries	3.8	5.0	8.5
Manufacturing	0.6	0.9	1.6
Trade	0.7	1.0	1.5
Community, business and personal services	0.9	1.4	2.3

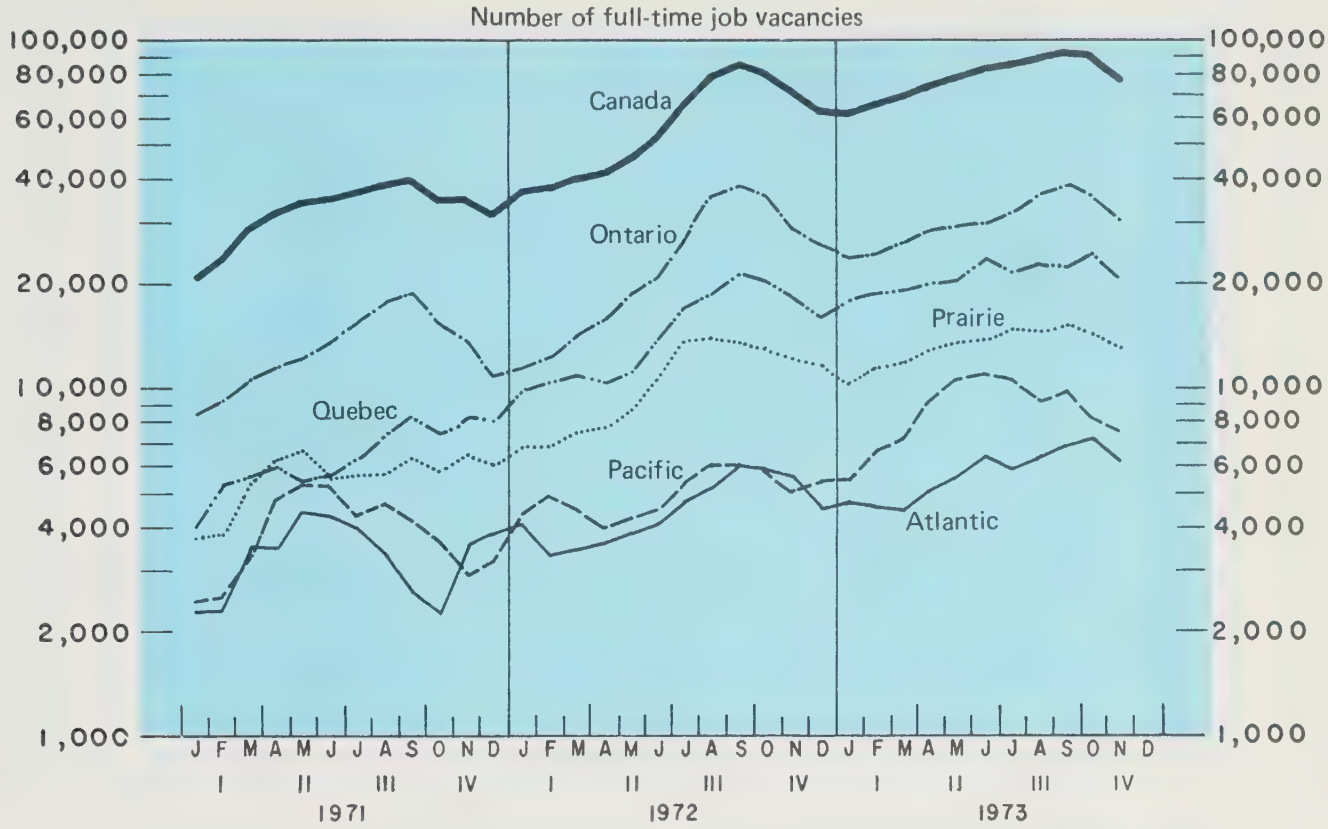
1) Includes Northwest Territories.
2) Includes Yukon Territory.

Chart 6.24
CURRENT FULL-TIME VACANCIES BY INDUSTRIAL DIVISION(1)



(1) Three-month moving averages.

Chart 6.25
JOB VACANCIES BY REGION, JANUARY 1971 to AUGUST 1973(1)



(1) *Three-month moving averages.*

Table 6.26
LABOUR COSTS IN SELECTED INDUSTRIES

	Manufacturing 1968	Mines, quarries and oil wells 1969	Finance, insurance and real estate 1970	Transportation, communication and other utilities 1971
		per cent		
Straight time	81.5	78.0	82.0	75.4
Premium pay[1]	2.3	5.3	1.7	6.4
Pay for time not worked[2]	7.4	7.4	8.2	9.1
Other direct pay[3]	1.2	1.7	1.5	0.8
Workmen's compensation	0.9	2.3	—	0.7
Unemployment insurance	0.7	0.7	0.6	0.6
Canada/Quebec pension plan	1.1	1.0	1.1	1.0
Benefit plans[4]	4.9	3.6	4.9	6.0
TOTALS	100.0	100.0	100.0	100.0
$	6,729	8,702	6,826	8,523

1) Includes overtime, holiday and shift work.
2) Includes paid holidays, vacations, sick and special leave.
3) Includes bonuses, separation pay and taxable benefits.
4) Includes private pension and health plans and provincial health plans.

Table 6.27
ACTUAL AND DEFLATED WEEKLY WAGES – INDUSTRIAL COMPOSITE

	Current dollars	Constant dollars
1941	26.65	49.44
1951	50.04	56.86
1961	78.24	78.24
1962	80.54	79.58
1963	83.27	80.84
1964	86.51	82.54
1965	91.01	84.74
1966	96.34	86.48
1967	102.83	89.11
1968	109.88	91.49
1969	117.63	93.73
1970	126.82	97.78
1971	137.64	103.18
1972	149.22	106.73
1973	160.19p	106.51p

Table 6.28
AVERAGE HOURLY EARNINGS BY INDUSTRY – NOVEMBER 1973

	Hourly earnings
	dollars
MINING, INCLUDING MILLING	5.01
MANUFACTURING:	
Durable goods	4.28
Non-durable goods	3.64
CONSTRUCTION:	
Building	6.18
Engineering	5.56
OTHER INDUSTRIES:	
Urban transit	4.84
Highway and bridge maintenance	3.43
Laundries, cleaners and pressers	2.34
Hotels, restaurants and taverns	2.41

Table 6.29
AVERAGE HOURLY EARNINGS IN MANUFACTURING[1] AND MINIMUM HOURLY WAGES BY PROVINCE

	Average hourly earnings in manufacturing December 1973p	Minimum hourly wage rates as at July 1, 1974
	dollars per hour	
CANADA	4.05	2.20[2]
Newfoundland	4.09	2.00
Prince Edward Island	..	1.65
Nova Scotia	3.46	1.80
New Brunswick	3.60	1.90
Quebec	3.53	2.00
Ontario	4.23	2.00
Manitoba	3.64	1.90
Saskatchewan	4.12	2.00
Alberta	4.21	2.00
British Columbia	5.19	2.50
Northwest Territories	..	2.00
Yukon Territory	..	2.00

1) Applies only to hourly-rated wage earners.
2) Applies to workers under federal jurisdiction.

Table 6.30
AVERAGE EARNINGS OF WOMEN AND MEN FULL-YEAR[1] WORKERS BY OCCUPATIONAL GROUP, 1971

	Women	Men	Women's salary as a per cent of men's salary
	dollars		per cent
Managerial	5,366	11,128	48.2
Professional and technical	7,276	12,104	60.1
Clerical	4,610	7,226	63.8
Sales	2,947	7,896	37.3
Service and recreation	3,000	6,379	47.0
Transportation and communication	4,672	7,571	61.7
Farmers, loggers and fishermen	2	3,819	–
Miners, craftsmen, etc.	3,966	8,077	49.1
Labourers	2	6,111	–

1) Those workers who reported having worked 50 to 52 weeks.
2) Sample too small for reliable estimate.

Chart 6.31
HOURS WORKED PER WEEK

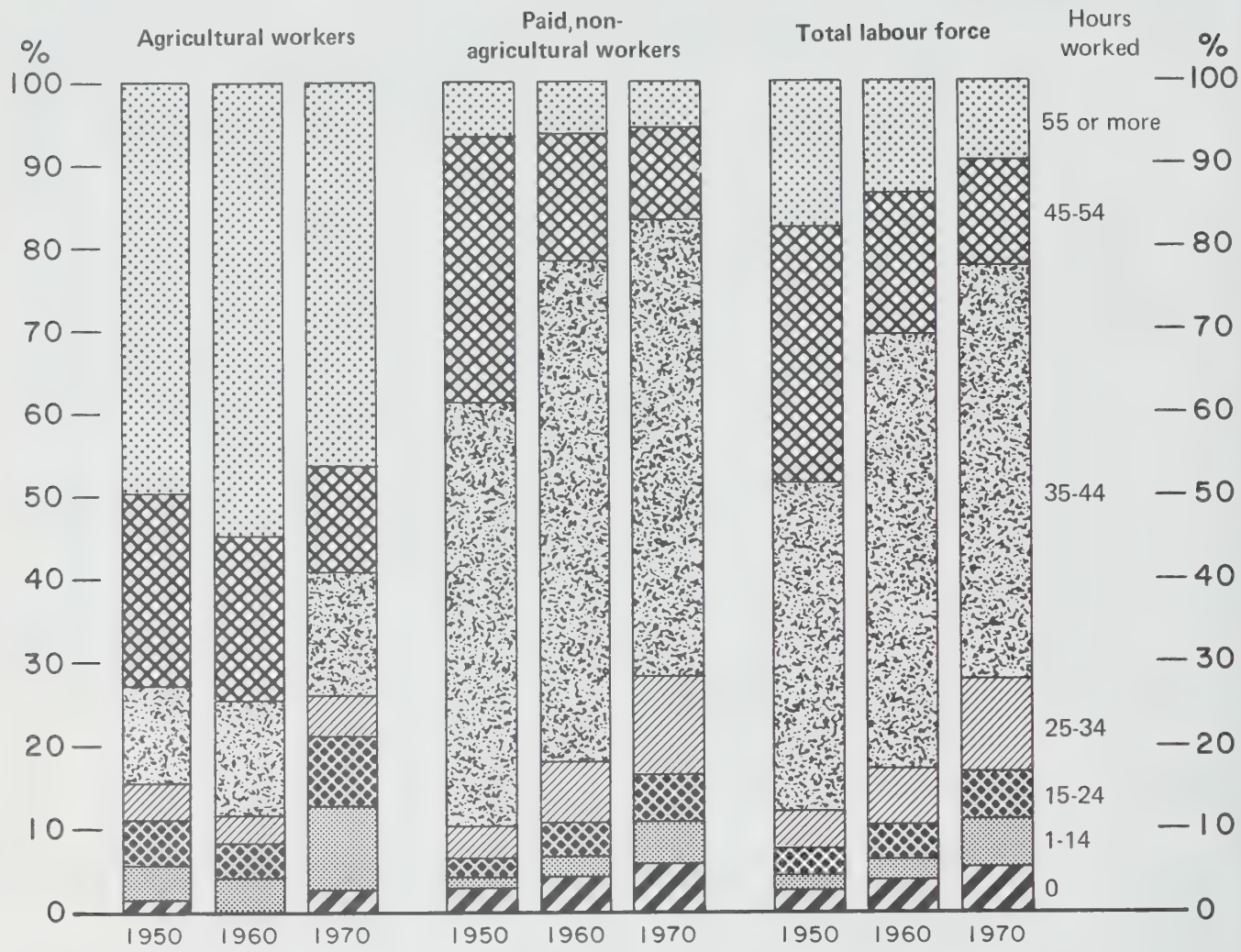
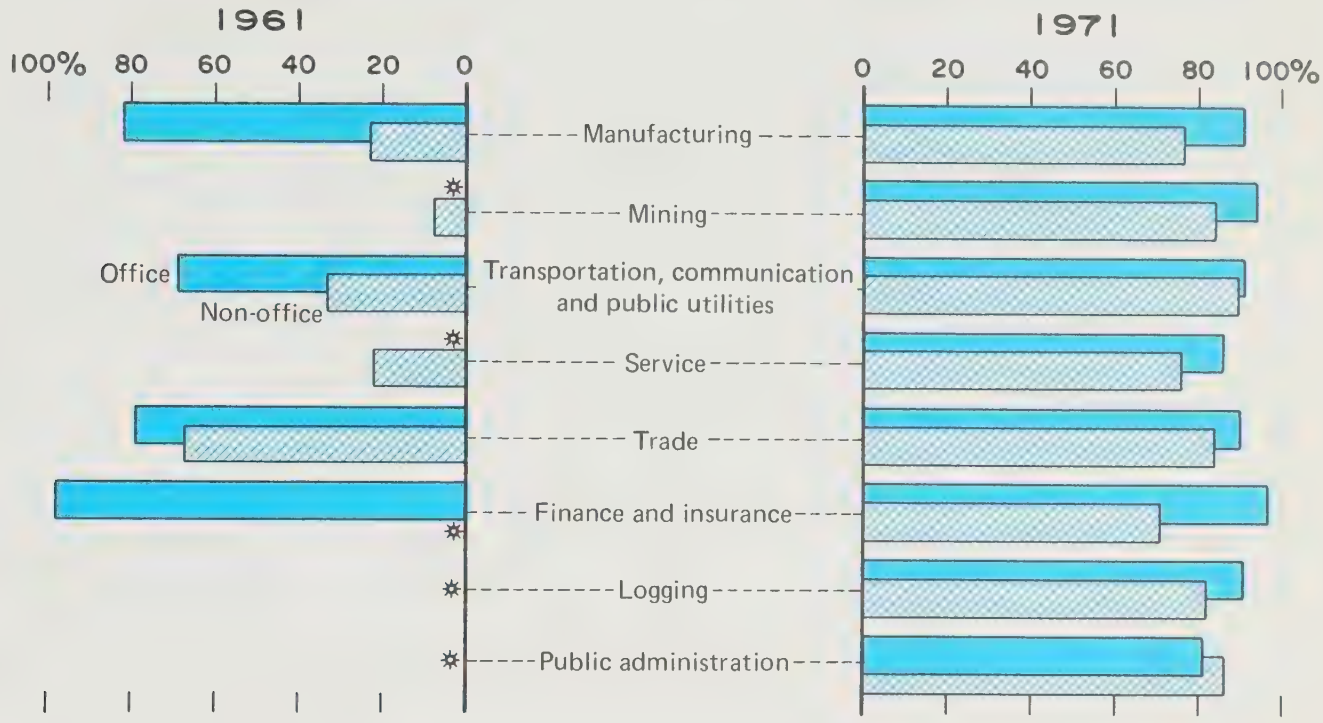


Table 6.32
EMPLOYEES WITH TWO WEEKS PAID VACATION AFTER ONE YEAR OR LESS EMPLOYMENT

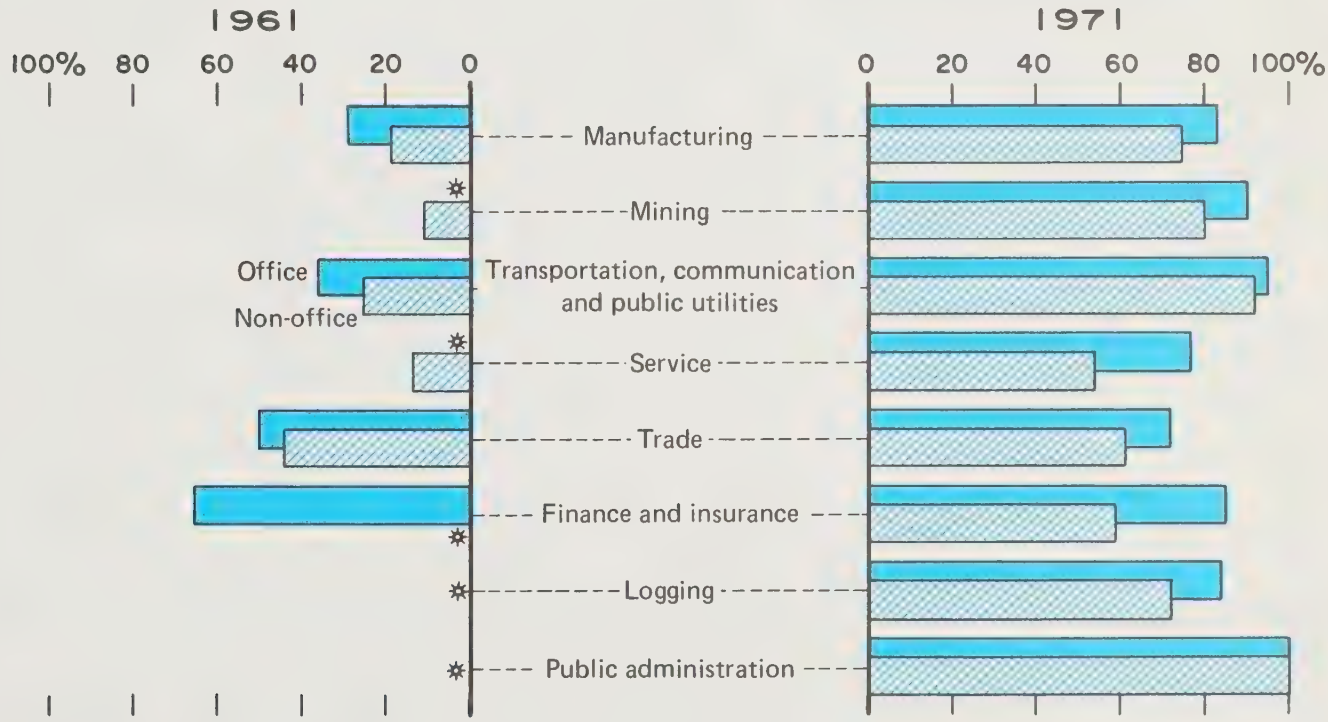
	TYPE OF EMPLOYEE	
	Office	Non-office
	per cent	
1963	86	35
1964	86	35
1965	72	38
1966	76	51
1967	82	60
1968	81	64
1969	80	69
1970	91	75
1971	89	80

Chart 6.33
PERCENTAGE OF EMPLOYEES WHO RECEIVE TWO WEEKS PAID VACATION AFTER ONE YEAR OR LESS EMPLOYMENT, BY INDUSTRY



* Not surveyed in 1961.

Chart 6.34
PERCENTAGE OF EMPLOYEES WHO RECEIVE NINE DAYS OR MORE PAID HOLIDAYS(1), BY INDUSTRY



* Not surveyed in 1961.

Table 6.35
DISTRIBUTION OF SELECTED PERQUISITES BY INDUSTRY FOR OFFICE AND NON-OFFICE WORKERS

	All industries	Logging	Mining	Manufacturing	Transportation and communication	Trade	Finance	Service	Public administration
	per cent								
Participating in profit sharing plans (1969):									
Office	10	2	6	14	2	29	8	16	–
Non-office	8	2	3	6	1	31	2	3	–
Participating in private pension plans (1969):									
Office	73	71	70	71	86	49	76	42	93
Non-office	71	51	71	68	89[1]	69[1]	54	63	97
Receive notice of layoff resulting from technological change (1971):									
Office	7	29	2	9	23	4	1	8	2
Non-office	14	31	9	14	41	3	–	7	4
Receives time and a half or more for overtime worked on normal working day (1969):									
Office	52	23	57	50	72	52	61	34	46
Non-office	78	82	87	89	80[1]	72[1]	61	58	73
Regularly work shift work (1969):									
Office	49	20	42	30	73	10	46	41	90
Non-office	71	66	91	75	83[1]	30[1]	25	77	94

1) Non-office and operating employees added together for transportation and trade.

Table 6.36
EMPLOYEES COVERED BY COLLECTIVE AGREEMENTS, BY INDUSTRY

	1961		1971	
	Office	Non-office	Office	Non-office
Manufacturing	7	67	8	72
Mining	1	78	7	76
Transportation, communication and public utilities	42	84	46	84
Service	1	30	19	37
Trade	3	16	3	22
Finance and insurance	1	0.2	2	9
Logging	1	1	28	77
Public administration	1	1	74	84

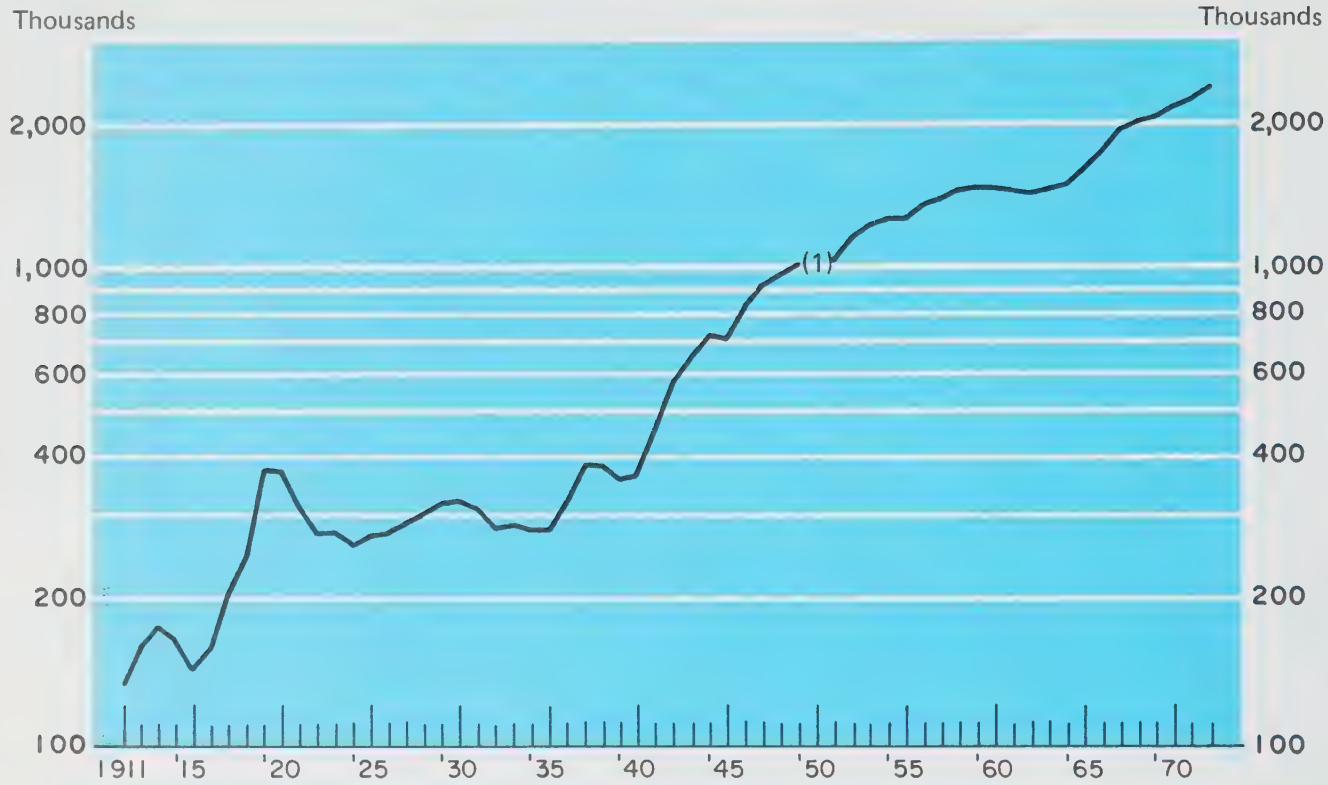
1) Not surveyed in 1961.

Table 6.37
EMPLOYEES COVERED BY COLLECTIVE AGREEMENTS, 1971, BY PROVINCE

	Office workers	Non-office workers	Special workers[1]
		per cent	
Newfoundland	31	70	41
Prince Edward Island	19	41	12
Nova Scotia	24	59	23
New Brunswick	40	66	64
Quebec	29	68	68
Ontario	26	65	43
Manitoba	30	61	50
Saskatchewan	39	52	60
Alberta	34	57	51
British Columbia	25	70	60
CANADA	28	65	53

1) Includes salespersons, transportation operators, nurses and hospital technicians.

Chart 6.38
UNION MEMBERSHIP



(1) Data up to and including 1949 are as at December 31. In 1950 the reference date was moved ahead by one day to January 1, 1951. The data on subsequent years are also as at January 1.

Table 6.39
UNION MEMBERSHIP BY TYPE OF UNION AND AFFILIATION, 1972

	Unions	Locals	MEMBERSHIP	
			Number	Percentage
International unions	99	4,914	1,411,852	59.6
AFL-CIO/CLC	84	4,463	1,195,398	50.4
CLC only	4	146	115,671	4.9
AFL-CIO only	5	8	619	–
Unaffiliated unions	6	297	100,164	4.2
National unions	68	5,278	892,691	37.7
CLC	19	2,862	401,098	16.9
CNTU	12	1,135	218,526	9.2
CCU	4	27	10,511	0.4
Unaffiliated unions	33	1,254	262,556	11.1
Directly chartered local unions	129	129	12,885	0.5
CLC	128	128	12,790	0.5
CNTU	1	1	95	–
Independent local organizations	141	141	53,213	2.2
TOTALS	437	10,462	2,370,641	100.0

Chart 6.40
UNION MEMBERSHIP BY INDUSTRY

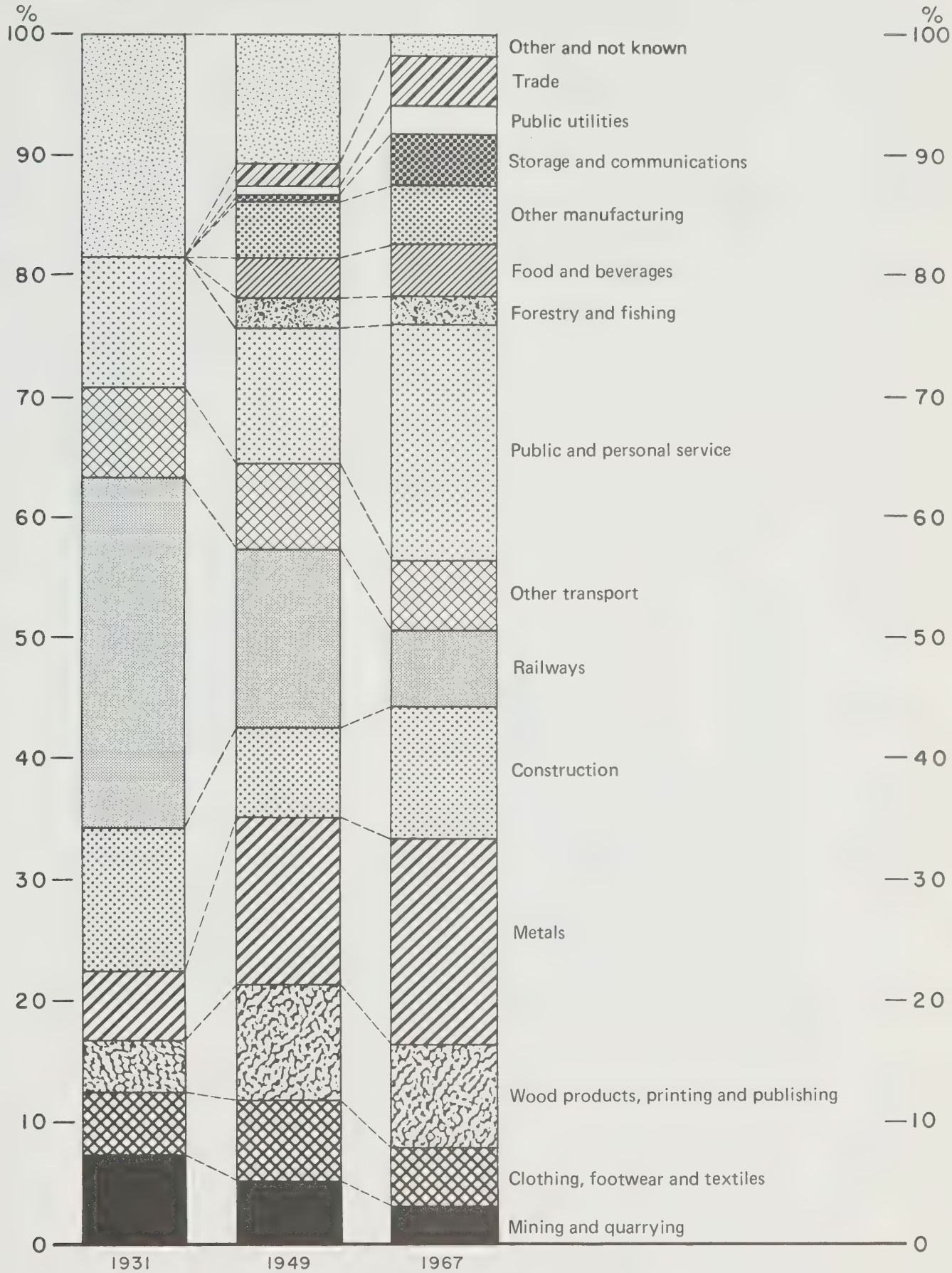


Chart 6.41
TIME LOST FROM STRIKES AND LOCKOUTS(1)

1) Man-days lost as a percent of estimated working time of the total labour force.

Table 6.42
INTRINSIC AND EXTRINSIC JOB SATISFACTION[1] BY INDUSTRY, 1968

	DEGREE OF SATISFACTION							
	INTRINSIC				EXTRINSIC			
	High	Medium	Low	Total	High	Medium	Low	Total
	per cent							
Automobile manufacture	14.7	41.4	43.9	100.0	34.4	46.7	18.9	100.0
Chemical	20.3	51.4	28.3	100.0	31.4	43.1	25.5	100.0
Electrical	24.6	50.8	24.6	100.0	28.1	44.6	27.3	100.0
Oil	26.8	53.1	20.1	100.0	56.7	36.6	6.7	100.0
Printing	18.0	51.2	30.8	100.0	29.6	48.2	22.2	100.0
Steel	16.7	53.6	29.7	100.0	31.8	48.6	19.6	100.0
TOTALS	20.2	50.1	29.7	100.0	35.9	44.6	19.5	100.0

1) Intrinsic satisfaction was measured as a response to the question: "How satisfied are you with the following aspects of your job? the recognition you get from your job; your control over the pace and quality of your work; the extent to which you can use your skills; the feeling of accomplishment from the work you are doing."

Extrinsic satisfaction was measured as a response to the question: "How satisfied are you with the following aspects of your job? the conditions under which you have to work (lighting, etc.); the opportunity for advancement; the amount of pay; the amount of security."

Table 6.43
JOB SATISFACTION AND INTEREST, 1968

	INDUSTRY						
	Automobile	Chemicals	Electrical	Oil	Printing	Steel	Total
	per cent						
QUESTION: Which one of the following statements comes closest to describing how you feel about your present job?							
RESPONSES OF EMPLOYEES:[1]							
Job is interesting nearly all the time	29.8	31.6	29.4	39.2	25.5	25.5	30.1
Some dull stretches now and then	32.4	50.3	54.0	52.1	55.6	57.5	50.3
Most of job is dull and monotonous	24.6	16.0	15.5	8.1	17.2	15.7	16.2
Completely dull and monotonous	13.2	2.1	1.1	0.6	1.7	1.3	5.4
QUESTION: Taking into consideration all the things about your job, how satisfied or dissatisfied are you with it?							
RESPONSES OF EMPLOYEES:[2]							
Very satisfied	11.0	16.0	19.7	24.8	17.0	15.7	17.6
Fairly satisfied	46.2	53.8	49.7	51.1	50.8	51.3	50.1
Neither satisfied nor dissatisfied	20.8	11.8	15.7	12.8	12.8	15.7	15.0
Fairly dissatisfied	15.0	12.5	9.1	8.9	14.3	11.2	12.0
Very dissatisfied	7.0	5.9	5.8	2.4	5.1	6.1	5.5

1) Total number of respondents 2,811.
2) Total number of respondents 2,816.

Income
7

Income and wealth give individuals command over goods and services, and convey social and economic status. Changes in these circumstances – or the prospect of future change – can alter the sense of well-being of individuals and hence the welfare of the nation. The level of income and wealth in a country, and the way it is distributed among individuals and families, across regions, between the sexes, and among the occupations (to cite only a few distributional aspects) are issues which have occupied peoples and governments for a long time.

In the broadest sense, everybody has income in one form or another. But this universality of income makes it necessary to define it carefully. The measurement of the level of "real" income and its distribution in a country is, of course, a crude approximation, and has to be qualified by conceptual and methodological considerations. The importance of measuring the **level** of, and **changes** in, real income has been recognized in the nearly universal application of national accounting systems. However, statistics on the **distribution** of income, by size, are not so generally available.

DATA

Administrative data such as tax statistics usually suffer from weaknesses that make them only remote proxies for measuring the distribution of income in the context of general public welfare. Income for tax purposes may be much more restrictive than total consumer purchasing power. Moreover, tax statistics usually cover only a fraction of the population – those who either pay taxes, or are compelled to file a tax return – and tax-filing units are not necessarily closely related to decision-making units of consumers.[1]

Some countries have taken household surveys or included income questions in censuses to obtain data on income distribution by size. These lend themselves more readily to analyses with welfare implications. Canada is one of the few countries that has had a regular survey program over the last two decades. Surveys of Consumer Finances have, since 1951, produced comprehensive and conceptually consistent income distribution data for selected years.

There is a high correlation between income and wealth. Visible wealth also tends to confer on the individual or family the more intangible elements of social prestige and position in the social hierarchy. In the final analysis, the distribution of the command over goods and services rests on both incomes and wealth. The Canadian Surveys of Consumer Finances have on four occasions obtained data on the assets and debts of families. These statistics, although selective in terms of the assets covered, and imperfect in terms of the quality of the data obtained, can indicate the broad distribution of Canadian wealth, and they are included in this chapter.

INCOME CONCEPT

The distributions by size of money income **before** taxes are not an ideal way to measure the distribution of purchasing power among the population. Direct taxes, such as income taxes, have not been subtracted and, in the case of a progressive taxation system, pre-tax money income distributions overstate the degree of inequality. On the other hand, money income received is a fairly restricted concept and **excludes** income in kind such as home-produced food and fuel, imputed rents on owner-occupied homes, meals and free accomodation received in lieu of wages, as well as capital gains, gifts, lump-sum settlements from insurance policies, income tax or pension plan refunds, etc.[2] On balance, if these items were included, the distributions might show more inequality. Although money income is thus imperfect for analyzing welfare, it is easier to collect data of uniform and acceptable quality on this basis than on a broader income concept, and it also represents by far the most important part of any broader income concept one would have ideally chosen.

UNIT OF ANALYSIS

The income tables in this chapter are for all income recipients, and for all family units. For analysis with welfare implications, the family series is the most useful; it covers all related individuals living in the same household, and regards them as one consumer decision-making unit – a group of individuals dependent on a common or pooled income for major items of expenditure. Individuals living alone, or in households where they are unrelated to anybody else, form a separate statistical group, and in most of the following tables data for these unattached individuals are shown separately.

Some data on individual income recipients is presented because it is of interest in its own right, such as for analyzing differences in income and earnings of

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[1] In Canada, the Department of National Revenue publishes annual statistics on the distribution of income of tax-filers by size of their taxable income. This series extends back over the post-war period and is a valuable source of income data. However, due to the problems mentioned above, these data may not be suitable for many porposes. For example, it must be borne in mind that historically the Canadian tax-filer population has undergone a substantial change; as current incomes rose and exemptions stayed fixed in terms of current dollars, a larger and larger proportion of income recipients became tax-filers. Such statistics are also not suitable for international comparisons.

[2] See Statistics Canada, *Income Distributions by Size in Canada, 1971,* Catalogue 13-207, and Concepts and Definitions at the close of this chapter, for more detail. In the same report, "Sources and Methods" (pp. 119-128) describes the methodology of data collection and estimation procedures and discusses the reliability of the estimates.

males and females. And because families act as redistributors of income earned by some of their members, individual-income data can help explain the changes in family incomes.

CHANGES IN THE INCOME DISTRIBUTION

The historical data illustrate the steady rise in average incomes over the 1951-71 period. Family incomes on average rose in current dollars by 50 per cent from 1951 to 1961, and by 95 per cent from 1961 to 1971. In real terms – after allowing for inflation – they increased by 32 per cent over the first decade, and by 46 per cent over the second decade.[3] Behind these increases were such factors as the rising incomes of individuals, and the increasing number of married women taking jobs outside the home. In 1951, wives contributed only 4 to 5 per cent of the total family income; by 1961, their contribution had increased to 8 per cent, and in 1971, it was nearly 14 per cent.[4] At the same time the contribution of children and other relatives decreased rather than increased.

Government transfer payments have increased substantially in absolute terms over the past two decades. However, as a proportion of total family income, transfer payments rose from 5.2 per cent in 1951 to 6.6 per cent in 1961 and have since declined, with the 1971 level estimated at 6.1 per cent of total family income. This suggests rising transfer payments have not been a major factor in raising the overall level of family incomes, although their impact on the incomes of some families may have been very important. Transfer payments have also been relatively more important to unattached individuals than to families; in 1971, 10.2 per cent of these individuals' income originated in transfer payments.

While average incomes have risen, there is little evidence that money income has become more equally distributed. Indeed, some analysis for the 1967-71 period seems to indicate that money income became more unequally distributed. These changes in inequality are, however, relatively minor, and in any event are based on inadequate data. Moreover, it is difficult to assess how family income distribution has been affected by changes in the size and nature of families in response to demographic and economic changes. For example, increases in old age pensions may act as an incentive for elderly couples or persons to set up their own households rather than live with relatives, thus creating an illusion of lower family incomes. Local initiative program grants or student loans may do the same for young people. As family statistics are compiled in these series, both developments may (if substantial enough) lower the average income per family unit and increase inequality – although it probably is a "better" situation in a social welfare sense because it is preferred by most.

An intriguing question arises from the increased labour force activity of married women: How does it affect family income distribution? With smaller families and rising educational levels, the increasing numbers of working couples could increase the unequal distribution of family purchasing power.

It should be emphasized again that findings about widening income inequality are based on an analysis of money income only. It is possible that if the distribution of goods and services free of charge or at reduced cost (e.g. education, health services, subsidized housing) were taken into account and the analysis done on some other broader income concept, the results would be different.

LOW INCOMES

Canada has no official poverty lines. For statistical purposes, low income cut-offs were developed to analyze the 1961 Census data.[5] These cut-offs were set for family units of 1, 2, 3, 4 and 5 or more persons, at $1,500, $2,500, $3,000, $3,500, and $4,000, respectively, in 1961. These limits have been adjusted for the rise in the Consumer Price Index, and the tabulations for 1967 and 1971 were produced on the bases of these adjusted limits. According to the data, the proportion of low income families had dropped from 18.4 per cent in 1967 to 15.9 per cent in 1971, and the incidence of low income among unattached individuals decreased from 39 to 37.6 per cent over the same period. In spite of this minor improvement, the characteristics of the low income population have stayed largely the same. Among low income families, less than half had heads who did not work, and 22 to 24 per cent had heads who had a broken employment record during the year.[6] The incidence of low income among families with female heads is very high and rising (from 36 per cent in 1967 to 44 per cent in 1971), and these families account for 15 to 20 per cent of all low income families.

It is important to emphasize that low income is here being defined in monetary terms. It must be recognized that other aspects of the level of living such as the state of health, the ability of people to participate in community life, and the prospects for providing

[3]Deflated total incomes which contain a component of taxes and saving as well as income expended on goods and services were obtained by deflating average incomes in current dollars by the Consumer Price Index – a practice that can be defended on grounds of expediency rather than of conceptual correctness.

[4]Estimated from various unpublished tabulations.

[5]See J.R. Podoluk, *Incomes of Canadians,* (Ottawa: Queen's Printer, 1968), Chapter 8. See also Economic Council, *Fifth Annual Review* (Ottawa: Queen's Printer, 1968), Chapter 6.

[6]Approximately half of the family heads, who in spite of working the full year could not bring their family incomes above the low income cut-off, were self-employed, many of them farmers.

children with an adequate education, are all relevant in judging whether a person has an adequate income. These, however, are variables that are difficult or impossible to measure.

Comparisons over time suffer from the inadequate adjustment of the low income cut-offs. These limits when originally developed for 1961 were selected on the basis of the observation that urban families with incomes below these limits spent 70 per cent or more of their income on the basic necessities of food, shelter and clothing, and that all urban families (regardless of income and family size) spent about 50 per cent of their income on these items. Choosing 70 per cent as the "hardship ratio" in relation to the national average of 50 per cent reflected in a way an arbitrary decision, but recognized the principle that low income should be defined in relation to general living standards.

National family expenditure data for 1969 indicate that the overall ratio of expenditures on necessities to income has fallen from 50 to 42 per cent. Thus to retain relativity, the "hardship ratio" should be dropped and the income cut-offs raised. If this were done (and research on the problem is in progress) the number of families perceived to be in the low income group would be increased.

REGIONAL INCOME DISPARITY

Persistent regional income disparities have been a continuing concern in Canadian politics and economics. These disparities can also be illustrated by the most recent average family income figures for 1971.[7]

	dollars
Canada	10,368
Atlantic provinces	7,936
Quebec	9,919
Ontario	11,483
Prairie provinces	9,309
British Columbia	11,212

Underlying these differences are the varying 1971 income patterns found in rural areas compared with those in urban centres:

	dollars
All families	10,368
In metropolitan centres	11,560
In other cities	9,917
In small urban areas	9,145
In rural areas	7,627

It is apparent that part of the regional income disparity can be explained by the different urbanization patterns in a province or region. It is interesting to speculate that family income differences by city size are largely due to differences in wage rates and employment opportunities, particularly for secondary earners in the family. Of course, other factors such as tastes, customs, and work-leisure choices may also play a role. It is also possible that, on the basis of a broader income concept than that of money income received, the differences by degree of urbanization would be reduced – families in rural and small urban areas usually have more income in kind than families in large cities.

DISTRIBUTION OF WEALTH

Information on assets, debts and net worth for family units indicates that the composition of these items and the main relationships of the incidence and average value of assets and debts and various socio-economic characteristics of families stay largely the same and change only slowly over time. In the spring of 1970, as well as in earlier years for which data are available, the market value of homes accounted for more than half of the net worth of **all** Canadian families. Clearly, for home-owning families (approximately 65 per cent of all families), the equity in this property is even more important. Asset and debt patterns vary by income groups and age as well as other family characteristics. As expected, high incomes and high assets are closely associated; however, it should be noted that lower income families have fewer debts and that net worth may not be as unequally distributed as is generally believed.

An older study using asset and debt data collected in 1964 indicates that taking overall economic status into account, rather than income only, makes quite a difference for certain subgroups of low income families.[8] Older couples in particular seem to have access to more resources than their current incomes indicate. On the other hand, large families among the low income population – most of them containing young children – have little in terms of net worth and thus have to depend completely on their inadequate income.

CONCLUSIONS

In summary, this review of the distribution of money income and wealth among Canadians indicates that although considerable gains in real income have materialized during the last two decades and most Canadians are better off – their levels of living have risen – the relative distribution has changed very little. These conclusions are drawn with many reservations in view of measurement problems and data interpretation.

CONCEPTS AND DEFINITIONS

The estimates presented here are based upon information collected from samples of Canadian house-

[7]See Statistics Canada, *Income Distributions by Size in Canada, 1971*, Catalogue 13-207, Table 2, p. 20-21.

[8]See G. Oja, "Problems of Defining Low Economic Status for Poverty Studies", *Canadian Statistical Review*, September, 1968.

holds in the Survey of Consumer Finances. The concepts, definitions, and methods used in preparing these estimates have remained largely unchanged over the period covered here, although the frequency of the surveys has varied (since 1971 they have been conducted annually). The samples were selected by multi-stage probability sampling, within the framework of the Canadian Labour Force Sample. Sample sizes were as shown at the bottom of this page.

The estimates exclude families whose major source of income was military pay and allowances. Similarly, individual income distributions exclude all those individuals whose major source of income was military pay and allowances. Excluded are also inmates of institutions, persons residing on Indian reservations, residents of the Yukon and Northwest Territories, and Canadians temporarily abroad.

The terms used in this chapter are defined as follows:

Family means a group of individuals sharing a common dwelling unit and related by blood, marriage, or adoption.

Unattached individual refers to a person living by himself or in a household where he is not related to other household members.

Family unit designates, collectively, unattached individuals and families with two or more members. Table headings always specify whether families only, or families and unattached individuals, are included.

Farm and **non-farm** rest on a distinction between farming and other income. For purposes of these surveys an individual was considered to be a farmer if more than half of his income originated in net income from farming. A family containing at least one such individual was defined to be a farm family.

Total income of a unit consists of wages and salaries, net income from self-employment, investment income, government transfer payments, miscellaneous income (retirement pensions, annuities, scholarships, alimony, and other items not specified above). The income concept used in the surveys and the censuses approximates the monetary income received by private households as measured in the personal income series in the National Accounts.

Low income was delineated by the following income cut-offs:

Family size:	1967	1971
	dollars	
One	1,746	2,013
Two	2,900	3,355
Three	3,480	4,026
Four	4,060	4,697
Five or more	4,640	5,368

Assets include cash on hand, bank deposits, other (savings) deposits, Government of Canada bonds, other bonds, publicly traded stocks, shares in investment clubs, other financial assets, miscellaneous (such as loans to other persons, oil royalties, patents, copyrights, etc.), market value of home, market value of vacation home, investment in other real estate, and value of automobiles.

Several groupings of the above asset items have been combined and are defined below:

(a) Deposit holdings: sum of the second and third items above.
(b) Bond holdings: sum of the fourth and fifth items above.
(c) Liquid asset holdings: sum of the first five items above.
(d) Financial asset holdings: sum of the first nine items above.
(e) Total asset holdings: sum of all the items above.

Debts include charge accounts and instalment debt, secured bank loans, other collateral bank loans, home improvement loans, other bank loans, loans from consumer loan companies, loans from Credit Unions and Caisses Populaires, other institutional loans, miscellaneous debts and loans, and mortgage debt on homes and vacation homes.

Aggregate items are defined as:

(a) Consumer debt: sum of the first, third, fifth, sixth and seventh items above.
(b) Personal debt: sum of the first nine items above.
(c) Total debt: sum of all the items above.

Net worth is defined as the difference between total assets and total indebtedness.

	1951	1957	1961	1967	1969/70	1971
All individuals	8,799	12,314	16,299	37,985	17,608	42,717
Families	4,552	6,272	8,340	18,143	8,085	19,011
Unattached individuals	1,089	1,475	2,045	4,135	1,715	4,712
All family units	5,641	7,747	10,385	22,278	9,800	23,723

Table 7.1
INCOME RECIPIENTS BY INCOME GROUP AND SEX, 1971

		Male	Female	All individuals
			per cent	
Under $1,000		10.1	27.6	17.1
$ 1,000 - $ 3,999		23.1	43.6	31.5
4,000 - 6,999		22.2	20.9	21.5
7,000 - 9,999		23.1	5.8	16.2
10,000 - 14,999		15.7	1.6	10.0
15,000 and over		5.8	0.5	3.7
TOTALS		100.0	100.0	100.0
Average income	$	7,004	2,948	5,371
Median income	$	6,345	2,005	4,186
Estimated numbers	'000	6,856	4,620	11,477

Table 7.2
FAMILIES AND UNATTACHED INDIVIDUALS BY INCOME GROUP, 1971

		Families	Unattached individuals	All units
			per cent	
Under $1,000		2.2	13.8	5.1
$ 1,000 - $ 3,999		13.1	43.2	20.7
4,000 - 6,999		17.4	23.2	18.9
7,000 - 9,999		22.0	12.1	19.6
10,000 - 14,999		28.2	5.8	22.5
15,000 - 24,999		14.2	1.9	11.0
25,000 and over		2.9		2.2
TOTALS		100.0	100.0	100.0
Average income	$	10,368	4,346	8,845
Median income	$	9,347	3,214	7,832
Estimated numbers	'000	5,107	1,729	6,836

Table 7.3
DISTRIBUTION OF INCOME AMONG INDIVIDUALS[1]

		ALL INDIVIDUALS					1971	
		1951	1957	1961	1967	1971	Male	Female
Mean income	$	2,086	2,812	3,191	4,222	5,371	7,004	2,948
Median income	$	1,768	2,351	2,651	3,553	4,170	6,331	2,000
Gini coefficient[2]		0.4322	0.4188	0.4271	0.4472	0.4843	0.4203	0.4874
Upper limit of:[3]					dollars			
Lowest quintile		510	790	816	1,200	1,225	2,000	720
Second quintile		1,410	1,900	2,050	2,628	2,916	5,002	1,560
Middle quintile		2,210	3,000	3,349	4,464	5,468	7,529	2,881
Fourth quintile		3,100	4,150	4,800	6,500	8,632	10,215	4,919
Shares of total income going to:[3]					per cent			
Lowest quintile		3.2	3.3	3.1	2.7	2.0	2.8	1.9
Second quintile		9.2	9.5	8.9	8.4	7.2	10.0	7.8
Middle quintile		17.4	17.5	17.2	16.8	15.5	18.0	14.1
Fourth quintile		25.2	25.4	26.0	25.8	26.0	25.1	26.3
Top quintile		45.0	44.3	44.8	46.3	49.2	44.1	50.0

1) Farmers not included before 1967. This, however, has little effect on the comparability. All data shown are in current dollars.
2) The Gini coefficient measures the inequality of income distribution. Its value ranges from 0 to 1. The higher the value the greater the degree of inequality.
3) Each quintile contains one fifth of all income recipients; for example, the lowest quintile contains the fifth of the recipients with the lowest incomes.

Table 7.4
DISTRIBUTION OF INCOME AMONG FAMILIES AND UNATTACHED INDIVIDUALS[1]

		ALL UNITS					1971	
		1951	1957	1961	1967	1971	Unattached	Families
Mean income	$	3,185	4,269	4,815	6,519	8,845	4,346	10,368
Median income	$	2,703	3,624	4,262	5,859	7,832	3,214	9,347
Gini coefficient[2]		0.3904	0.3810	0.3679	0.3789	0.4001	0.4655	0.3433
					dollars			
Upper limit of:[3]								
Lowest quintile		1,260	1,650	1,930	2,592	3,110	1,384	4,927
Second quintile		2,310	3,040	3,586	4,824	6,275	2,199	8,044
Middle quintile		3,180	4,200	4,950	6,807	9,295	4,296	10,669
Fourth quintile		4,320	5,870	6,630	9,468	12,941	6,959	14,196
					per cent			
Shares of total income going to:[3]								
Lowest quintile		4.4	4.2	4.2	4.2	3.6	2.9	5.6
Second quintile		11.2	11.9	11.9	11.4	10.6	8.0	12.6
Middle quintile		18.3	18.0	18.3	17.8	17.6	14.8	18.0
Fourth quintile		23.3	24.5	24.5	24.6	24.9	25.8	23.7
Fifth quintile		42.8	41.4	41.1	42.0	43.3	48.6	40.0

1) Farmers not included before 1967. This, however, has little effect on the comparability. All data shown are in current dollars.
2) The Gini coefficient measures the inequality of income distribution. Its value ranges from 0 to 1. The higher the value the greater the degree of inequality.
3) Each quintile contains one fifth of all income recipients; for example, the lowest quintile contains the fifth of the recipients with the lowest incomes.

Chart 7.5
MEAN INCOME OF FAMILIES, UNATTACHED INDIVIDUALS, AND ALL INDIVIDUALS

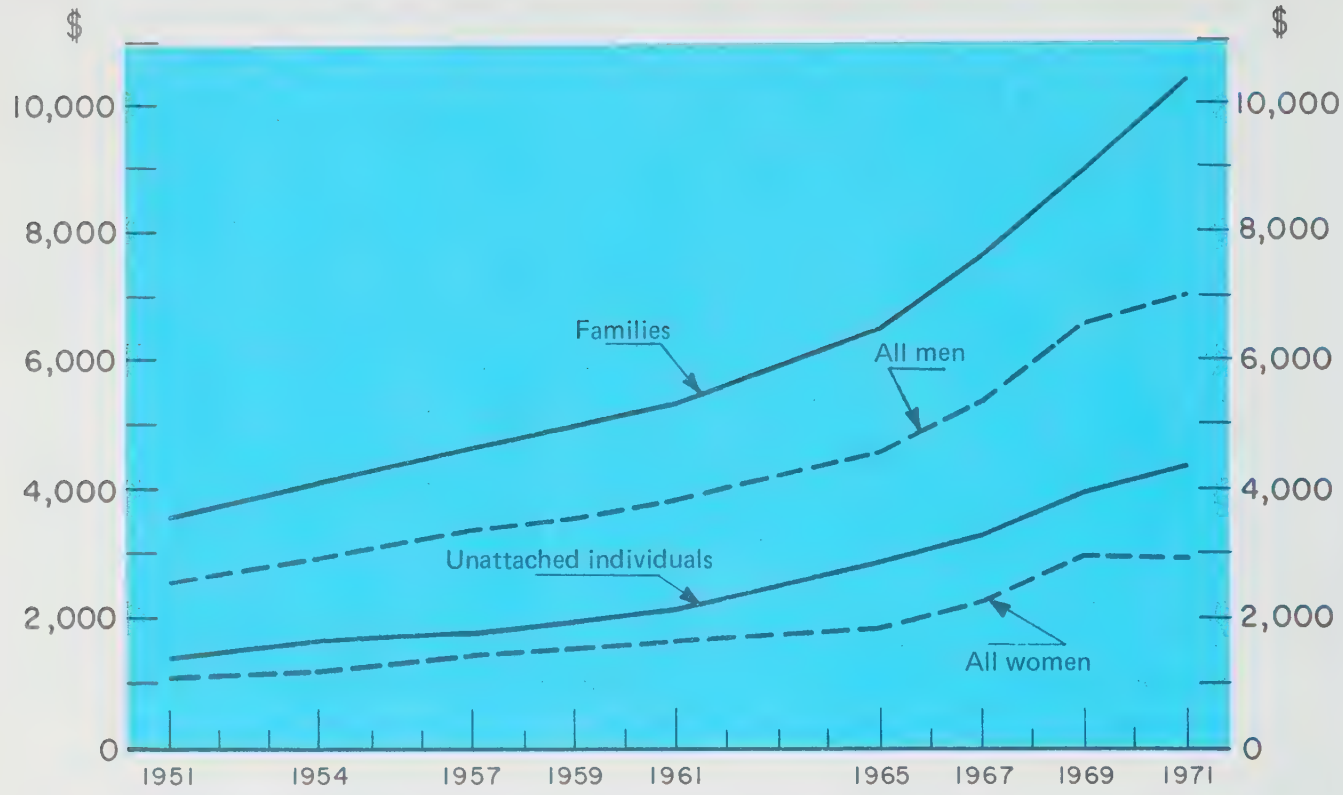


Chart 7.6
UPPER LIMITS OF INCOME QUINTILES FOR FAMILIES AND UNATTACHED INDIVIDUALS

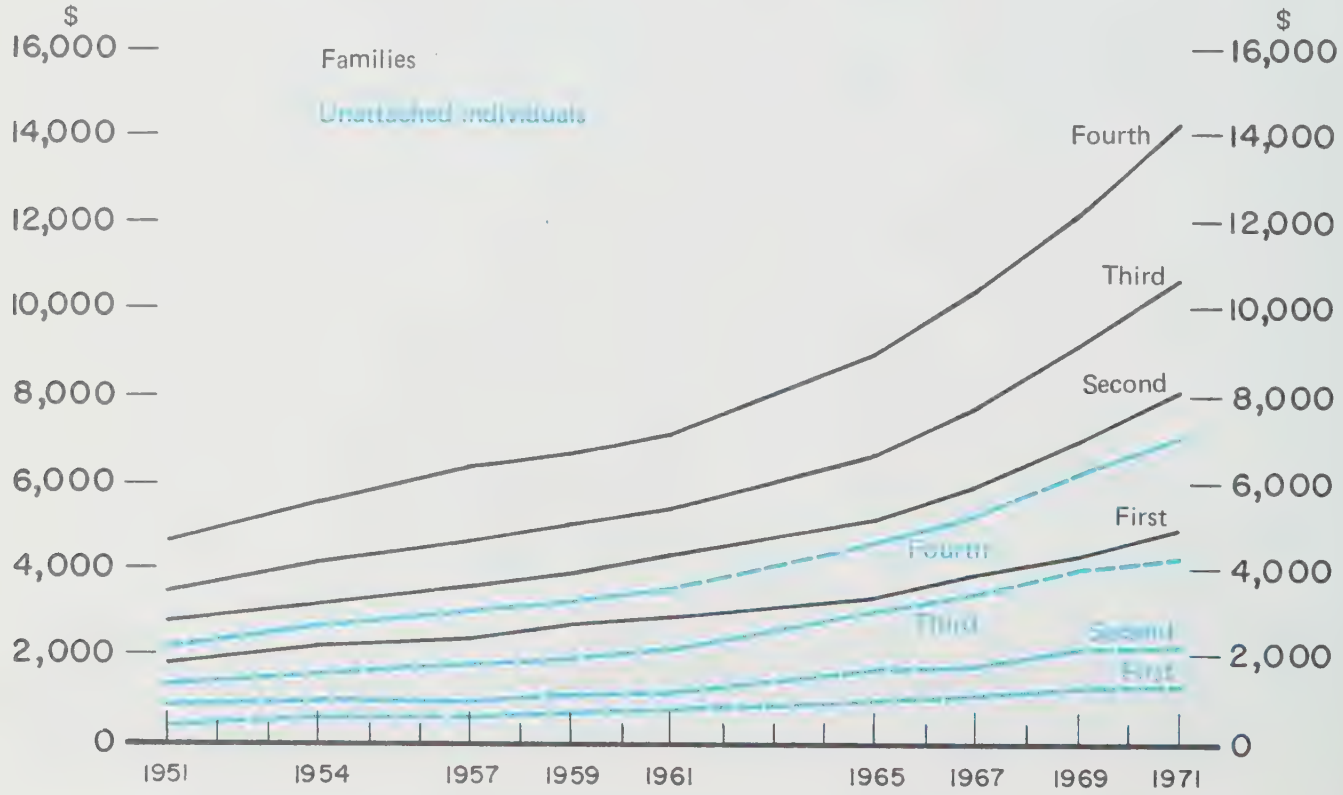


Chart 7.7
SHARES OF TOTAL INCOME GOING TO EACH QUINTILE OF FAMILIES AND UNATTACHED INDIVIDUALS

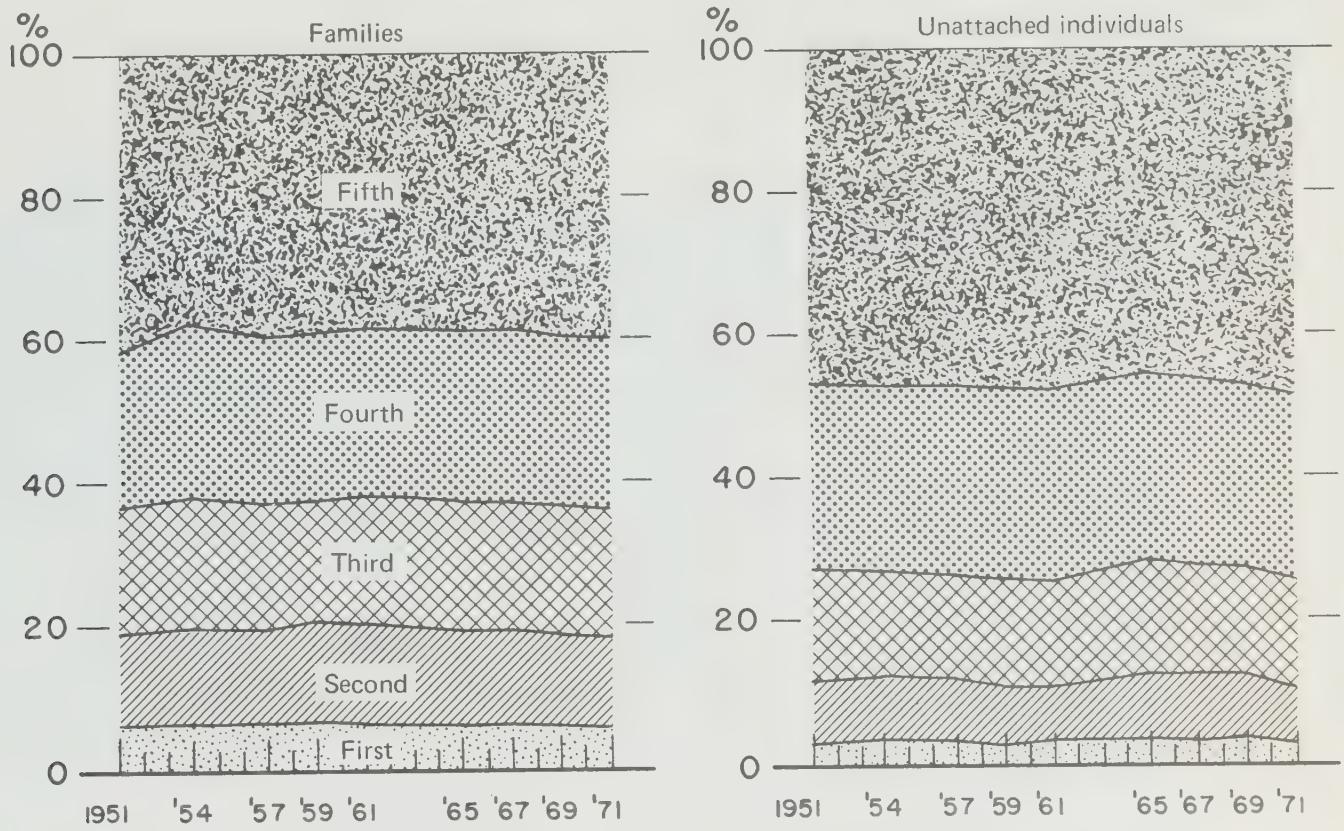


Chart 7.8
FAMILIES IN EACH INCOME QUINTILE BY MAJOR SOURCE OF INCOME, 1971

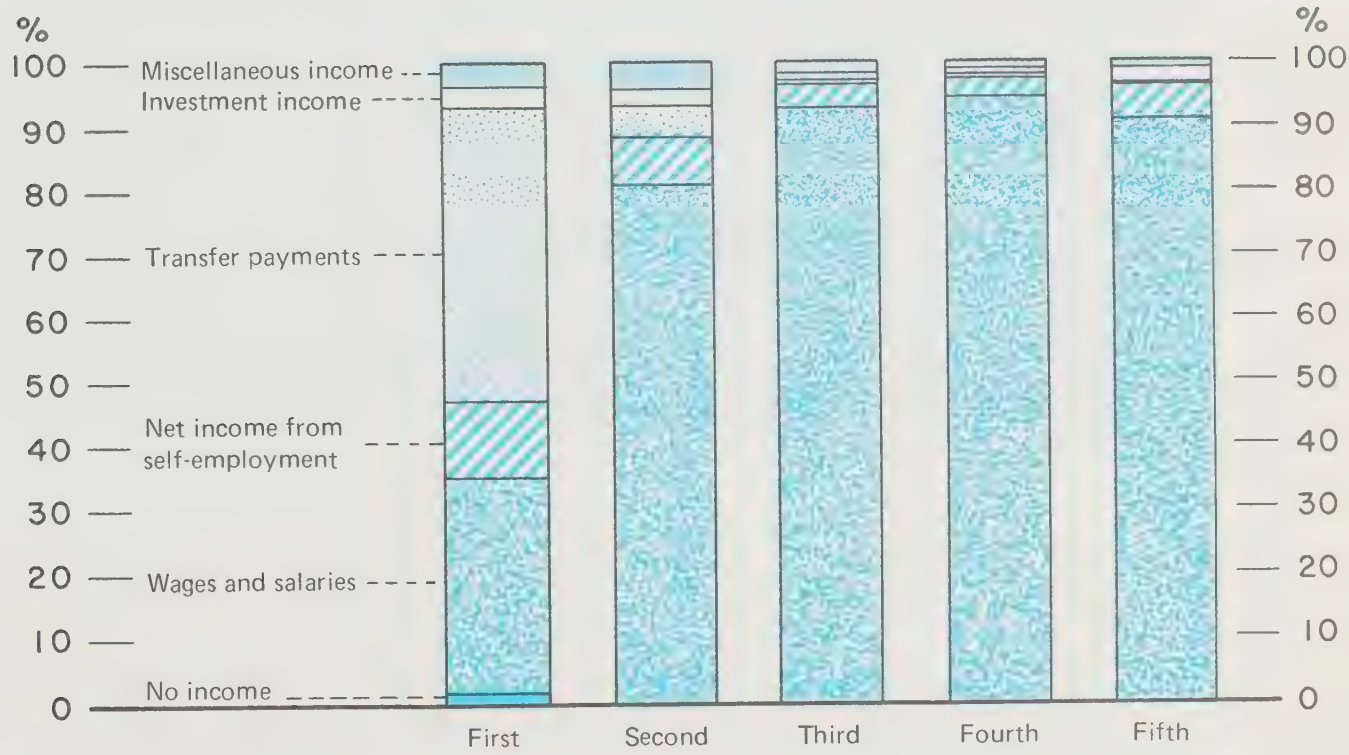
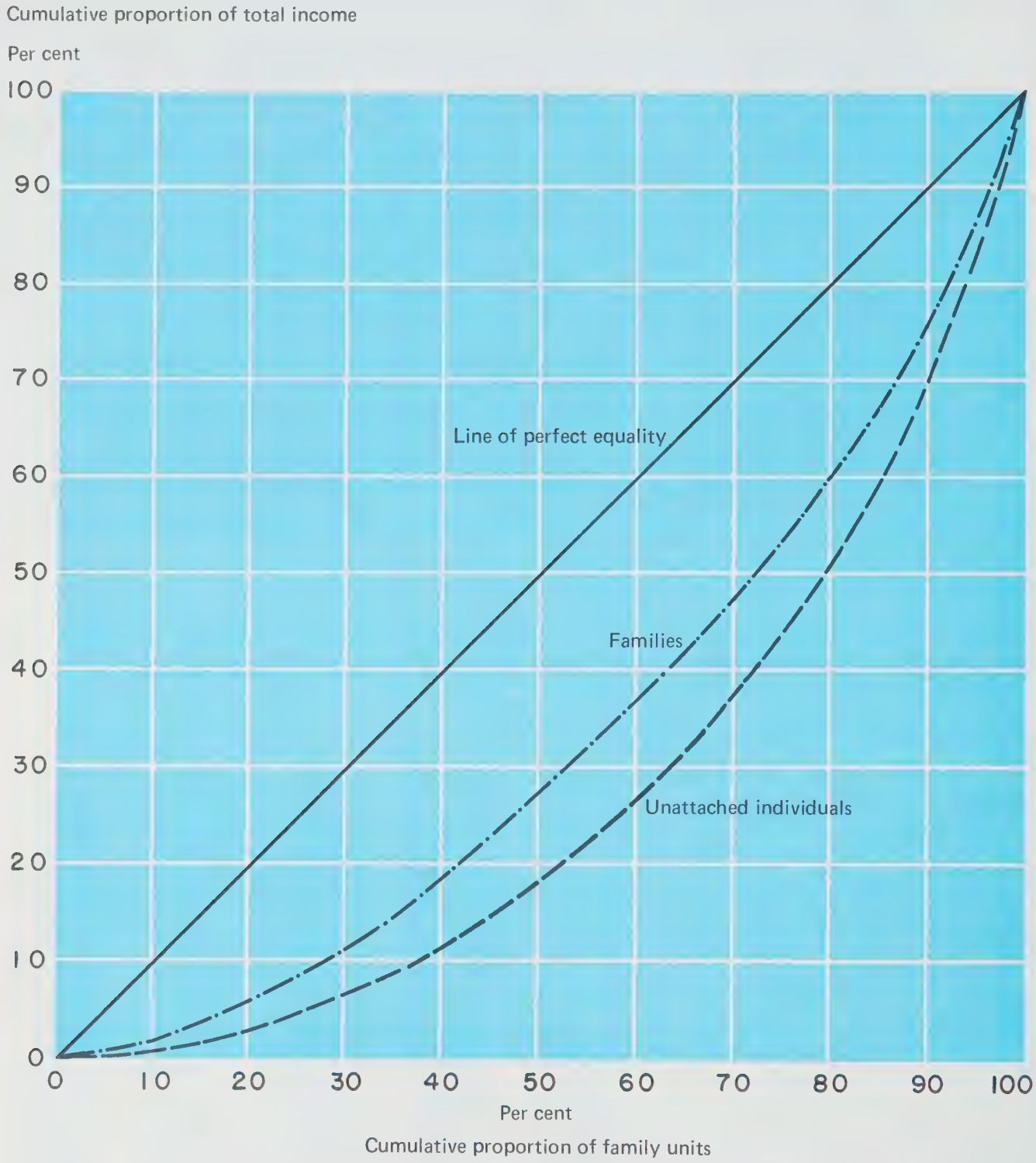


Chart 7.9
LORENZ CURVE(1) – INCOME OF FAMILIES AND UNATTACHED INDIVIDUALS, 1971



1) The greater the area enclosed by the diagonal (or equality) line and the actual Lorenz curve, the greater the inequality of income distribution as measured by this method.

Table 7.10
OCCURRENCE OF LOW INCOME[1] FAMILIES AND UNATTACHED INDIVIDUALS

	PERCENTAGE OF ALL FAMILIES		PERCENTAGE OF ALL INDIVIDUALS	
	1967	1971	1967	1971
ALL UNITS	18.4	15.9	39.0	37.6
Province:				
Newfoundland	40.1	33.7	58.7	55.8
Prince Edward Island	52.5	34.0	59.8	55.1
Nova Scotia	30.2	23.0	49.5	44.1
New Brunswick	30.1	24.1	44.8	48.3
Quebec	19.9	17.7	42.0	39.6
Ontario	12.2	11.2	33.1	32.6
Manitoba	20.4	19.4	41.0	37.2
Saskatchewan	27.2	27.9	42.1	37.8
Alberta	21.8	17.9	36.6	35.9
British Columbia	15.9	12.0	41.2	41.9
Area of residence:				
Metropolitan centres (30,000 +)	10.6	10.7	32.0	31.8
Other cities (15,000 - 29,999)	15.6	15.7	50.9	42.8
Small urban areas (less than 15,000)	21.8	17.1	50.9	49.7
Rural areas	40.5	31.0	58.3	54.8
Weeks worked by head in reference year:				
None	49.2	48.7	75.2	71.9
1 - 9 weeks	56.8	55.3	84.2	78.8
10 - 19 "	46.2	36.7	63.4	66.7
20 - 29 "	41.3	28.8	43.6	37.5
30 - 39 "	30.1	19.9	28.1	25.1
40 - 49 "	18.4	11.4	21.5	10.3
50 - 52 "	10.1	7.3	14.0	11.1
Age of head:				
14 - 24 years	14.6	17.4	38.2	39.0
25 - 34 "	14.9	12.4	12.3	15.8
35 - 44 "	15.7	13.1	15.9	22.2
45 - 54 "	14.6	11.9	25.4	26.8
55 - 64 "	17.7	16.2	40.1	36.0
65 - 69 "	31.1	26.7	56.0	50.2
70 years and over	42.0	39.1	68.5	65.3
Current employment status of head:[2]				
Employee	8.7	7.3	21.1	21.3
Self-employed	34.3	25.5	41.9	34.4
Not in labour force	45.9	44.0	71.0	67.1
Current occupation of head in reference week:[2]				
Managerial	6.5	6.0	9.9	11.3
Professional and technical	3.3	3.3	21.1	16.3
Clerical	6.0	4.4	15.9	13.8
Sales	6.4	6.8	16.9	20.0
Service and recreation	15.8	14.5	40.2	41.5
Transportation and communication	14.3	10.5	13.9	16.1

See footnotes at end of table.

Table 7.10
OCCURRENCE OF LOW INCOME[1] FAMILIES AND UNATTACHED INDIVIDUALS – Concluded

	PERCENTAGE OF ALL FAMILIES		PERCENTAGE OF ALL INDIVIDUALS	
	1967	1971	1967	1971
Current occupation of head in reference week[2] – Concluded:				
Farmers and farm workers	52.4	43.5	51.4	63.5
Loggers and fishermen	38.3	32.1	55.2	31.5
Miners	8.0	7.8	16.6	16.5
Craftsmen	9.2	7.4	13.0	15.5
Labourers	21.0	17.3	26.2	29.3
Did not work	45.9	44.3	71.1	67.4
Schooling of head:				
None or some elementary	37.0	43.4	62.7	73.4
Completed elementary or some high school[3]	17.3	18.8	39.6	44.6
Completed high school or some university[4]	8.3	7.5	29.2	26.5
University degree	3.5	3.8	9.3	15.0
Farm:				
Resident on farm	48.7	37.3	61.7	56.7
Not resident on farm	15.5	14.1	38.0	36.8
Major source of income:				
No income	100.0	100.0	100.0	100.0
Wages and salaries	9.0	6.2	18.2	15.7
Net income from self-employment	40.4	34.0	40.3	41.1
Transfer payments	75.8	75.7	88.6	87.6
Investment income	26.1	18.8	32.0	20.6
Pensions	26.1	14.1	26.8	8.2
Miscellaneous income	43.6	29.1	33.5	30.3
Family characteristics:				
Unattached individual	...	...	39.0	37.6
Married couples only	22.4	18.1	...	...
Married couples with single children	15.3	11.8	...	...
Married couples with married children	9.4	8.5	...	...
Married couples with relatives other than children	14.7	13.1	...	...
Other families	33.4	38.8	...	...
Number of children under 16 years:				
No children	19.3	16.9	39.0	37.6
One child	13.9	12.7	...	...
Two children	14.1	13.8	...	...
Three children	19.3	16.9	...	...
Four or more children	25.7	22.3	...	...
Sex of head:				
Male	16.2	13.7	30.2	31.9
Female	36.3	43.7	47.3	43.1

1) For an explanation of low income see the text.
2) Current occupation and employment status of the head refer to the time of the survey, April 1968 for 1967 data, and April 1972 for 1971 data, and do not necessarily reflect the head's status for the income reporting periods, the 1967 and 1971 calendar years.
3) For 1971 includes also those who had 5 years of elementary school or more, but who did not complete grade 8. (In 1967 these persons were included in "none or some elementary").
4) For 1971 also includes post-secondary non-university education (some or completed).

Table 7.11
COMPARISON OF LOW INCOME[1] AND OTHER FAMILIES

	PERCENTAGE OF LOW INCOME FAMILIES		PERCENTAGE OF OTHER FAMILIES	
	1967	1971	1967	1971
CANADA TOTAL	100.0	100.0	100.0	100.0
Province:				
Newfoundland	4.4	4.3	1.5	1.6
Prince Edward Island	1.4	1.0	0.3	0.4
Nova Scotia	5.6	5.0	2.9	3.2
New Brunswick	4.4	4.1	2.3	2.4
Quebec	29.9	29.9	27.0	26.4
Ontario	24.4	26.1	39.5	39.3
Manitoba	5.3	5.7	4.7	4.5
Saskatchewan	7.2	7.4	4.3	3.6
Alberta	8.5	8.5	6.9	7.4
British Columbia	8.8	8.0	10.5	11.2
Area of residence (total):	100.0	100.0	100.0	100.0
Metropolitan centres (30,000 +)	34.9	41.5	66.5	65.4
Other cities (15,000 - 29,999)	5.7	5.8	7.0	5.9
Small urban areas (less than 15,000)	14.3	12.9	11.6	11.9
Rural areas	45.1	39.8	15.0	16.8
Weeks worked by head in reference year (total):	100.0	100.0	100.0	100.0
None	35.9	46.1	8.4	9.2
1 - 9 weeks	3.3	3.3	0.6	0.5
10 - 19 "	3.9	4.0	1.0	1.3
20 - 29 "	6.0	6.3	1.9	3.0
30 - 39 "	6.1	4.4	3.2	3.3
40 - 49 "	5.5	4.4	5.5	6.4
50 - 52 "	39.3	31.5	79.4	76.2
Age of head (total):	100.0	100.0	100.0	100.0
14 - 24 years	4.2	7.1	5.5	6.4
25 - 34 "	17.1	17.7	22.1	23.8
35 - 44 "	21.1	19.2	25.6	24.2
45 - 54 "	16.5	15.4	21.8	21.6
55 - 64 "	14.2	14.8	14.9	14.4
65 - 69 "	8.5	8.5	4.2	4.2
70 years and over	18.3	17.3	5.7	5.1
Current employment status of head[2] (total):	100.0	100.0	100.0	100.0
Employee	33.0	32.0	77.7	77.1
Self-employed	26.7	20.8	11.5	11.5
Not in labour force	40.4	47.1	10.7	11.4
Current occupation of head in reference week[2] (total):	100.0	100.0	100.0	100.0
Managerial	4.0	4.6	12.8	13.7
Professional and technical	1.7	2.2	11.2	12.5
Clerical	1.9	1.5	6.7	6.4

See footnote at end of table.

Table 7.11
COMPARISON OF LOW INCOME[1] AND OTHER FAMILIES – Concluded

	PERCENTAGE OF LOW INCOME FAMILIES		PERCENTAGE OF OTHER FAMILIES	
	1967	1971	1967	1971
Current occupation of head in reference week[2] (total) – Concluded:				
Sales	1.5	1.9	4.9	4.9
Service and recreation	5.4	5.4	6.5	6.0
Transportation and communication	4.7	3.7	6.3	6.1
Farmers and farm workers	19.7	14.6	4.0	3.6
Loggers and fishermen	2.4	1.8	0.9	0.7
Miners	0.4	0.5	1.0	1.0
Craftsmen	14.2	12.8	31.7	30.6
Labourers	3.9	3.7	3.3	3.4
Did not work	40.3	47.1	10.7	11.2
Schooling of head (total):	100.0	100.0	100.0	100.0
None or some elementary	41.1	16.4	15.8	4.0
Completed elementary or some high school[3]	47.6	68.5	51.4	56.2
Completed high school or some university[4]	10.0	13.4	24.7	31.4
University degree	1.3	1.8	8.0	8.4
Farm (total):	100.0	100.0	100.0	100.0
Resident on farm	23.1	18.4	5.5	5.9
Not resident on farm	76.9	81.6	94.5	94.1
Major source of income (total):	100.0	100.0	100.0	100.0
No income	1.7	2.0	- -	- -
Wages and salaries	38.1	30.4	87.5	87.9
Net income from self employment	21.4	13.5	7.1	5.0
Transfer payments	33.7	49.1	2.4	3.0
Investment income	2.4	2.5	1.5	2.1
Pensions	2.0	1.4	1.3	1.6
Miscellaneous	0.7	0.9	0.2	0.4
Family characteristics (total):	100.0	100.0	100.0	100.0
Unattached individual	...	...	...	...
Married couple only	27.7	29.0	21.7	24.8
Married couple with single children	51.3	43.9	63.8	62.4
Married couple with married children	2.5	2.2	5.4	4.5
Married couple with relatives other than children	0.9	0.9	1.2	1.2
Other families	17.7	24.0	8.0	7.2
Number of children under 16 (total):	100.0	100.0	100.0	100.0
No children	41.7	44.2	39.4	41.2
One child	13.4	15.9	18.7	20.8
Two children	15.2	16.1	18.9	19.1
Three children	12.3	11.4	11.6	10.7
Four or more children	17.5	12.4	11.4	8.2
Sex of head (total):	100.0	100.0	100.0	100.0
Male	85.2	79.6	94.1	95.0
Female	14.8	20.4	5.9	5.0

For footnotes see Table 7.10.

Table 7.12
ASSETS AND DEBTS, BY INCOME GROUP, 1970

1969 income group	ASSETS					
	Liquid assets	Non-liquid financial assets[1]	Investment in other real estate	Estimated market value of home and vacation home	Estimated market value of automobile	Total
	per cent					
All families and unattached individuals:						
Under $1,000	21.1	7.1	3.1	65.6	3.2	100.0
$ 1,000 - $ 1,999	23.2	5.2	2.8	66.9	1.9	100.0
2,000 - 2,999	24.4	7.2	3.6	61.9	2.9	100.0
3,000 - 3,999	23.1	6.8	9.7	56.7	3.7	100.0
4,000 - 4,999	25.0	7.2	6.5	56.4	4.8	100.0
5,000 - 5,999	23.9	7.0	7.7	55.7	5.7	100.0
6,000 - 6,999	18.5	7.0	6.2	62.0	6.2	100.0
7,000 - 9,999	16.2	5.7	5.8	66.3	5.9	100.0
10,000 - 14,999	14.1	8.5	7.2	64.4	5.8	100.0
15,000 - 24,999	18.2	12.5	10.4	54.3	4.7	100.0
25,000 and over	18.2	28.0	16.5	34.6	2.7	100.0
TOTALS	18.1	9.7	7.9	59.3	5.0	100.0
Families:						
Under $1,000	16.8	6.3	4.6	68.1	4.1	100.0
$ 1,000 - $ 1,999	15.7	5.7	1.4	74.1	3.2	100.0
2,000 - 2,999	19.4	4.8	3.0	69.7	3.1	100.0
3,000 - 3,999	20.9	6.6	8.9	60.1	3.5	100.0
4,000 - 4,999	21.3	7.0	7.2	60.0	4.5	100.0
5,000 - 5,999	21.7	6.4	5.1	61.7	5.2	100.0
6,000 - 6,999	16.5	6.2	6.4	65.3	5.6	100.0
7,000 - 9,999	13.8	5.2	5.6	69.5	5.9	100.0
10,000 - 14,999	13.3	7.9	6.9	66.2	5.8	100.0
15,000 - 24,999	17.4	12.1	10.7	55.0	4.7	100.0
25,000 and over	17.5	25.8	16.6	37.3	2.8	100.0
TOTALS	16.0	9.3	7.9	61.7	5.0	100.0

See footnote(s) at end of table.

Table 7.12
ASSETS AND DEBTS, BY INCOME GROUP, 1970 — *Concluded*

1969 income group	DEBTS BY TYPE OF DEBT AS A PER CENT OF TOTAL ASSETS				Net worth[3] as a % of total assets	Average net worth
	Consumer debt	Other personal debt[2]	Mortgage on home and vacation home	Total debt		
	per cent					dollars
All families and unattached individuals:						
Under $1,000	4.4	1.7	7.1	13.2	86.8	4,001
$ 1,000 - $ 1,999	1.2	0.5	1.7	3.4	96.6	6,927
2,000 - 2,999	2.8	2.1	3.4	8.4	91.6	8,360
3,000 - 3,999	3.7	1.3	4.3	9.3	90.7	10,158
4,000 - 4,999	4.9	1.0	7.6	13.5	86.5	10,226
5,000 - 5,999	6.1	0.9	8.8	15.7	84.3	9,563
6,000 - 6,999	6.1	1.7	12.0	19.8	80.2	10,783
7,000 - 9,999	6.3	1.1	16.6	24.0	76.0	12,731
10,000 - 14,999	4.4	1.3	17.8	23.4	76.6	18,114
15,000 - 24,999	3.1	1.7	13.9	18.8	81.2	33,876
25,000 and over	1.9	3.7	5.9	11.6	88.4	94,740
TOTALS	4.4	1.5	12.7	18.6	81.4	14,369
Families:						
Under $1,000	5.2	2.2	11.1	18.6	81.4	9,142
$ 1,000 - $ 1,999	1.4	0.4	5.0	6.8	93.2	
2,000 - 2,999	3.0	1.5	4.8	9.3	90.7	8,993
3,000 - 3,999	4.1	1.3	4.9	10.2	89.8	11,911
4,000 - 4,999	4.9	1.2	7.9	14.0	86.0	11,745
5,000 - 5,999	5.6	1.0	10.1	16.7	83.3	10,525
6,000 - 6,999	6.1	1.7	13.0	20.8	79.2	12,013
7,000 - 9,999	6.5	1.2	17.8	25.6	74.4	12,766
10,000 - 14,999	4.4	1.3	18.3	24.0	76.0	18,345
15,000 - 24,999	3.2	1.3	14.3	18.8	81.2	33,759
25,000 and over	2.0	4.0	6.3	12.4	87.6	91,842
TOTALS	4.5	1.5	14.0	20.1	79.9	16,586

1) Non-liquid financial assets consist of stock holdings, mortgage holdings and other miscellaneous financial assets including loans to other persons.
2) Other personal debt includes bank loans against collateral of securities, loans from insurance companies, home improvement loans and miscellaneous unsecured debts.
3) Net worth = Total assets — Total debt.

Chart 7.13
FAMILIES AND UNATTACHED INDIVIDUALS REPORTING SELECTED ASSETS, BY INCOME GROUPS ,1970

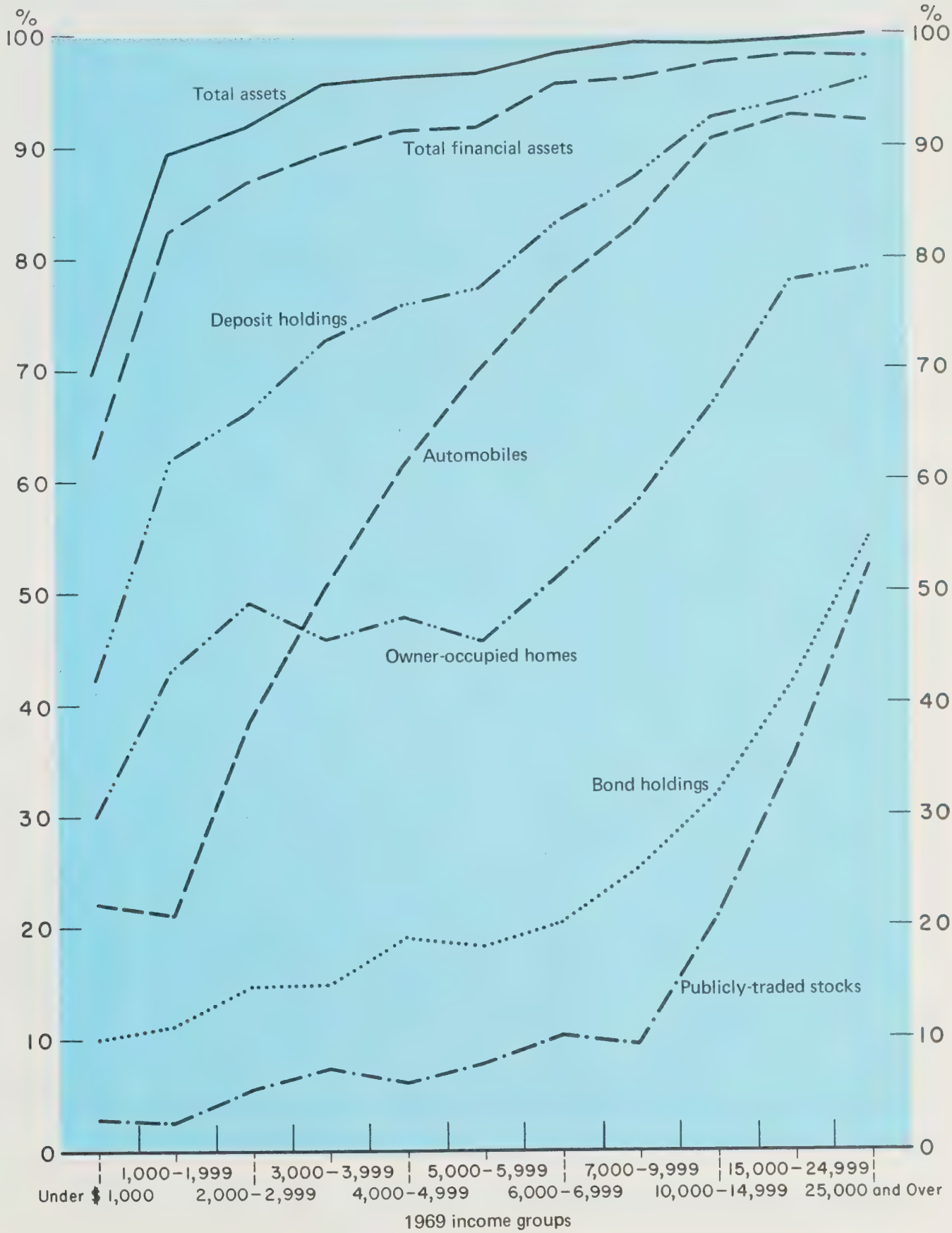


Chart 7.14
COMPOSITION OF TOTAL ASSETS OF FAMILIES AND UNATTACHED INDIVIDUALS, 1970

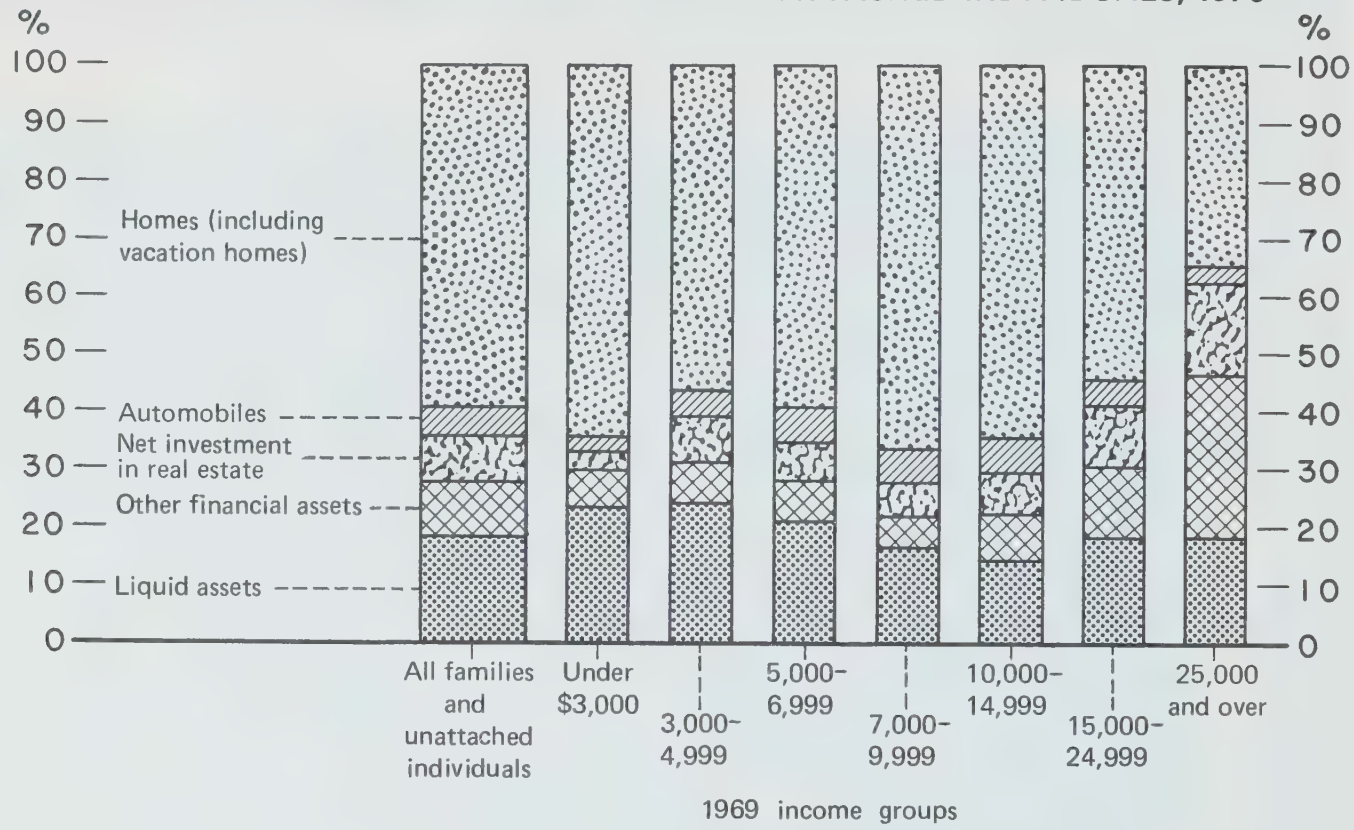


Chart 7.15
COMPOSITION OF TOTAL DEBTS OF FAMILIES AND UNATTACHED INDIVIDUALS, 1970

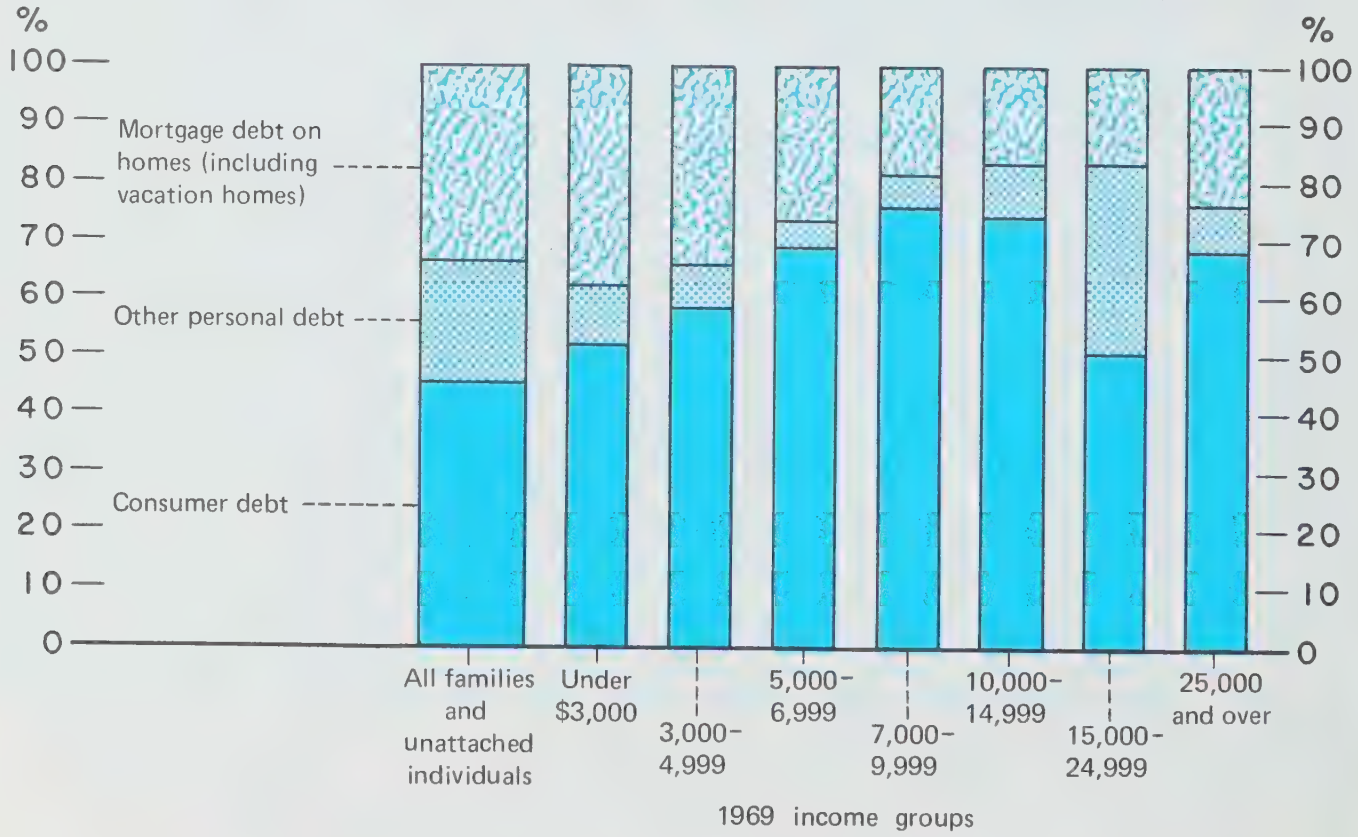


Chart 7.16
FAMILIES AND UNATTACHED INDIVIDUALS REPORTING SELECTED DEBTS, 1970

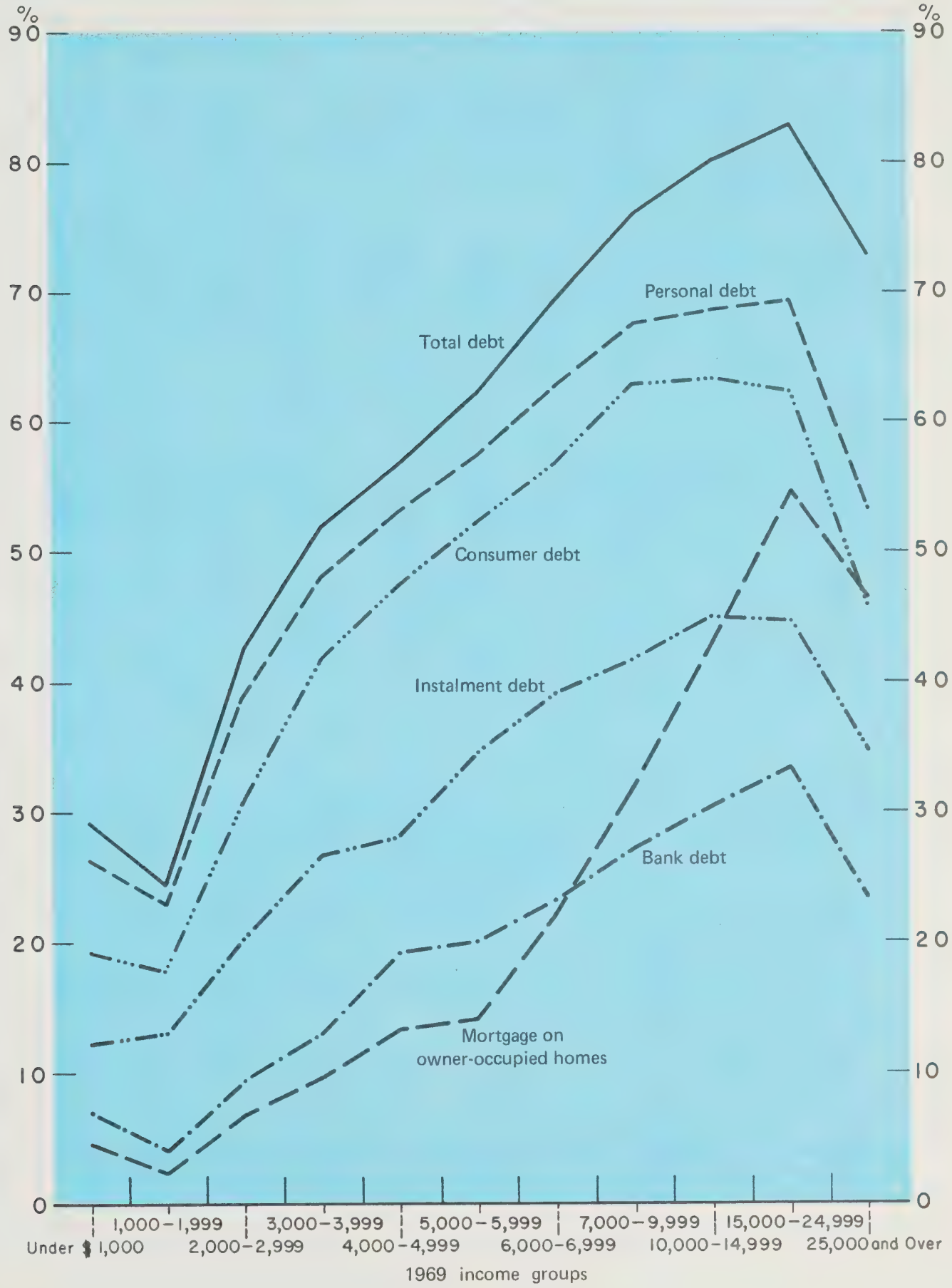


Table 7.17
LIQUID ASSETS AND CONSUMER DEBTS OF FAMILIES, BY AGE OF HEAD AND INCOME GROUP, 1970

	FAMILY INCOME 1969						
	Under $3,000	$3,000 - 4,999	$5,000 - 6,999	$7,000 - 9,999	$10,000 - 14,999	$15,000 and over	Total
	per cent						
Proportion without liquid assets:							
34 years and under	25.8	13.9	5.1	2.8	1.2	- -	5.6
35 - 44 years	25.4	15.1	7.3	5.6	2.5	0.5	6.6
45 - 54 "	21.2	15.4	8.5	5.5	2.8	2.5	6.8
55 - 64 "	10.6	10.4	6.6	3.6	2.2	4.1	5.6
65 years and over	11.2	5.1	4.6	1.4	4.1		6.5
All families	16.9	11.6	6.3	4.1	2.3	1.7	6.2
Proportion without consumer debt:							
34 years and under	44.0	29.3	24.6	24.1	27.3	25.9	27.1
35 - 44 years	46.8	40.6	40.3	37.0	33.8	34.7	37.3
45 - 54 "	64.7	44.8	40.0	38.8	32.0	37.8	39.4
55 - 64 "	67.0	61.0	57.6	42.4	51.6	54.2	54.0
65 years and over	87.8	81.7	71.5	69.7	67.9		79.0
All families	68.2	52.0	42.1	35.1	35.5	39.9	42.8
	dollars						
Average liquid assets, holders only:							
34 years and under	451	652	848	1,122	1,631	3,944	1,280
35 - 44 years	1,336	1,192	1,056	1,667	2,153	7,495	2,461
45 - 54 "	1,367	3,456	2,213	2,992	3,799	8,649	4,060
55 - 64 "	2,804	3,717	4,119	4,355	5,858	14,730	5,791
65 years and over	3,098	6,260	9,935	9,785	15,569		7,464
All families	2,207	3,184	2,901	2,493	3,305	9,445	3,588
Average liquid assets, all families:							
34 years and under	335	561	805	1,091	1,612	3,944	1,209
35 - 44 years	997	1,012	979	1,574	2,099	7,460	2,299
45 - 54 "	1,078	2,924	2,026	2,829	3,691	8,436	3,782
55 - 64 "	2,508	3,330	3,849	4,200	5,727	14,126	5,465
65 years and over	2,752	5,942	9,479	9,650	14,928		6,978
All families	1,835	2,816	2,717	2,391	3,229	9,287	3,365

Table 7.17
LIQUID ASSETS AND CONSUMER DEBTS OF FAMILIES, BY AGE OF HEAD AND INCOME GROUP, 1970 — Concluded

	FAMILY INCOME 1969						
	Under $3,000	$3,000 - 4,999	$5,000 - 6,999	$7,000 - 9,999	$10,000 - 14,999	$15,000 and over	Total
	dollars						
Average consumer debt, debtors only:							
34 years and under	1,074	1,341	1,690	2,055	1,848	2,648	1,833
35 - 44 years	1,284	1,259	1,367	1,536	1,669	2,625	1,657
45 - 54 "	1,062	1,727	1,356	1,485	1,517	2,193	1,606
55 - 64 "	969	1,363	1,097	1,453	1,512	2,431	1,493
65 years and over	442	499	1,088	725	1,351		819
All families	1,006	1,315	1,451	1,714	1,668	2,425	1,650
Average consumer debt, all families:							
34 years and under	601	948	1,275	1,561	1,344	1,962	1,337
35 - 44 years	683	748	816	968	1,104	1,715	1,038
45 - 54 "	375	953	814	910	1,031	1,363	973
55 - 64 "	320	532	465	837	731	1,113	686
65 years and over	54	91	310	220	433		172
All families	320	631	841	1,113	1,076	1,458	944

Table 7.18
CUMULATIVE SHARES OF TOTAL ASSETS, 1970[1]

	Unattached individuals	Families	All units
Percentage of total assets held by:			
Most wealthy 1 per cent	15.1	11.2	12.0
" " 2 "	22.9	16.3	17.4
" " 5 "	38.6	27.3	28.6
" " 10 "	55.7	38.7	41.8
" " 20 "	78.1	56.5	60.8
" " 50 "	97.8	89.5	93.3
Average value of assets $	8,573	20,747	17,646

1) All families and unattached individuals were ranked by size of their asset holdings including those who held no assets. See Table 7.12 for composition of total assets and Concepts and Definitions for a more detailed description of the components of total assets.

Table 7.19
COMPOSITION OF TOTAL INCOME OF FAMILIES AND UNATTACHED INDIVIDUALS

	ALL UNITS					1971	
	1951	1957	1961	1967	1971	Unattached	Families
	per cent						
Wages and salaries	78.9	78.7	78.5	80.4	80.9	74.8	81.7
Net income from self-employment	10.3	10.4	9.3	7.7	5.6	3.1	5.9
Transfer payments	5.2	6.4	7.0	6.6	6.6	10.2	6.1
Investment income	4.4	3.3	3.7	3.4	4.6	7.3	4.3
Miscellaneous	1.2	1.2	1.5	1.8	2.3	4.5	2.0
TOTALS	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 7.20
COMPOSITION OF TOTAL FAMILY INCOME

	ALL FAMILIES				
	1951	1957	1961	1967	1971
	per cent				
Wages and salaries	78.8	78.9	78.9	80.9	81.7
Net income from self-employment	10.7	11.1	9.8	8.4	5.9
Transfer payments	5.2	6.1	6.6	6.1	6.1
Investment income	4.3	2.9	3.4	3.1	4.3
Miscellaneous	1.1	1.0	1.3	1.6	2.0
TOTALS	100.0	100.0	100.0	100.0	100.0

Table 7.21
FAMILY INCOME, 1970

Income group	Canada	New-found-land	Prince Edward Island	Nova Scotia	New Bruns-wick	Quebec	Ontario	Mani-toba	Saskat-chewan	Alberta	British Columbia	Yukon	Northwest Territories
Under $1,000[1]	2.6	3.2	2.4	2.5	2.8	2.3	2.1	3.7	6.1	3.8	2.4	3.6	9.1
$ 1,000 - $ 3,999	14.4	31.0	28.4	21.0	22.4	14.8	10.3	18.1	25.0	15.3	12.8	9.9	22.1
4,000 - 6,999	20.2	28.3	29.1	27.5	27.7	23.4	16.8	21.1	23.4	18.9	17.2	11.4	14.4
7,000 - 9,999	24.1	18.9	20.9	23.8	24.3	24.7	24.2	24.4	20.9	23.2	25.0	17.5	16.8
10,000 - 14,999	24.8	13.2	13.0	17.6	16.4	22.2	29.1	22.3	17.1	25.1	27.8	34.6	23.1
15,000 - 19,999	8.3	3.3	3.8	4.7	4.0	7.5	10.5	6.4	4.5	8.2	9.0	15.7	9.7
20,000 - 24,999	2.8	1.1	1.1	1.4	1.2	2.5	3.5	1.9	1.4	2.7	2.9	4.6	3.1
25,000 and over	2.8	1.0	1.3	1.5	1.2	2.6	3.5	2.1	1.6	2.8	2.9	2.7	1.7
TOTALS	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Average income $	9,600	6,680	6,989	7,858	7,479	9,260	10,661	8,646	7,328	9,475	10,019	11,194	8,449
Number of families '000	5,076.1	108.2	24.4	181.5	140.7	1,357.4	1,883.8	235.8	216.3	382.7	534.7	4.0	6.6

1) Includes loss and zero income.

Consumption of Goods and Services

8

Although the income of the family or the individual is the single most important means of acquiring goods and services, it is by no means the only one. In the first place a large (and increasing) part of total consumption in society is financed by the public purse. Secondly, goods and services produced in the household add to real consumption but are excluded from the "market calculus".

The long-run economic growth in Canada has resulted in a general expectation of a continuing increase in total consumption of goods and services. At the same time there has also been a distinct shift towards the acceptance of "welfare state" ideology, reflected in increasing government expenditures on health, education, and social welfare.

Personal expenditure is clearly related to income. However, the issue of who benefits from **collective** goods and services is not so clearly understood. Certain kinds of public expenditures have redistributional objectives that favour lower income groups – for example, social welfare services and subsidized housing. But who, or which specific social group, benefits from expenditures on such items as higher education, highway construction, and National Parks? Public facilities are, of course, available to all in principle, but in reality there is probably a distinct bias in terms of actual use. Airports are one example. Their effective use is limited to those who can afford air travel.

The uncritical acceptance that increasing consumption per head is an evident measure that society is "better off" is now being seriously questioned. Some of these questions address themselves to the concern of the global effect on society and the environment of the continuous increase of the production of goods and services. There has also been a shift away from considering consumption in straightforward economic terms (the market value of goods and services) to evaluating consumption in relation to quality, range of choice, and access to private and public goods and services.[1]

Part of this new emphasis can be traced to the awareness that it is not the market value of the goods and services *per se* that reflect social well-being, but the satisfaction and services derived from them. In the real world, consumption is a total experience rather than an "inventory" of separate items. For example, the satisfaction and services derived from the motor car cannot be divorced from traffic congestion, pollution, nor the pleasure of motoring in the countryside. Clearly, the conceptual image of what is a desirable way of measuring consumption and the practical means of attaining it are worlds apart.

Nevertheless, recent statistical research on the development of "net social benefit" measures are beginning to open the way for conceptual frameworks for more pertinent measures of consumption.[2] One of the major concerns in this "new accounting" is how to evaluate the benefits obtained from the consumption of collective goods and services. We have recently witnessed a substantial increase in public expenditures. In the 1950s, expenditures at all levels of government accounted for about 26 per cent to 28 per cent of Gross National Product; the proportion steadily increased through the 1960s so that by 1971 it had reached 37 per cent. Part of these expenditures merely redistribute income in the form of transfer payments – e.g. pensions, family allowances, unemployment benefits, welfare assistance, and interest on public debt. These, of course, complement the general household expenditure. Transfer payments to persons, excluding interest on public debt, have accounted for about 20 to 25 per cent of total government expenditures in the past decade. What remains may properly be called "collective expenditure". The latter can be further distinguished between expenditures that directly benefit individuals, such as health care, education and social services, and those for the common good, such as administration, defence, and economic infrastructure. From the data it is evident that the most rapid increases in expenditure were those associated with direct benefit to the individual. Expenditures on health, education and social welfare accounted for about 30 per cent of the total in 1956; by 1970 they had reached 50 per cent of the total.

A further step in the attempt to measure "real" consumption in society is to evaluate the functional role of the family in relation to both its production and consumption of goods and services. More than 90 per cent of Canadians live in family units characterized by "dependence on a common or pooled income for the major items of expense and living in the same dwelling".[3] Clearly, with pooled income and expenditure a family unit can enjoy a wider range of goods and services than they could as individuals.

What is perhaps more important is the "non-market" goods and services derived from the "unpaid" services of family members. On a conceptual level one can view the family as a production unit which combines **time, effort** and **market goods** to produce more basic commodities such as clean homes, cooked meals, home-made furniture, and flower gardens. In this context, new goods and services are produced which complement and, in some cases, substitute for goods and services that are purchased.

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[1] *List of Social Concerns,* OECD, Paris, 1973.

[2] Statistics Canada will examine the possibilities for estimating non-market services and environmental disamenities in relation to the National Accounts.

[3] Definition of the family used in Family Expenditure data, Statistics Canada. See Concepts and Definitions in this chapter.

Statistical information in this section is expressed exclusively in terms of expenditure. On theoretical grounds one would prefer to measure consumption in actual quantities of goods – e.g. pounds of butter, square feet of living space, number of haircuts – with perhaps adjustments for quality.[4] But that would require a different approach from the conventional measures of consumption. In fact most people keep records of expenditure, rather than quantities consumed, thus expenditure is utilized as a convenient proxy for actual consumption. The problem of relative price changes is somewhat offset by converting current dollar values to "constant dollars", which simply adjusts all price changes to those in some given base year. Unfortunately, the adjustment becomes increasingly unreliable the further the data are from the "benchmark" year.

Data in this chapter have been selected to illustrate three basic themes: (i) 20-year trends (1951-71) of aggregate personal expenditure in the economy as provided by National Accounts; (ii) the growth of public goods and services from public expenditure accounts of federal, provincial and municipal governments; and (iii) detailed expenditure and distributional aspects of household expenditure from sample surveys.

PERSONAL EXPENDITURE

The most comprehensive picture of personal expenditure is derived from the National Accounts. These estimates are largely built upon information from retail trade, and revenue of personal services. They also include, however, some imputed estimates of "goods in kind", e.g. farm goods produced and consumed in farm households, and "imputed rent of owner-occupied home"; nevertheless, the line is drawn at consumption of goods and services produced in the household. Some notable observations are the increasing share of personal income that is claimed for the public purse – which in 1951 was just under 10 per cent, and by 1971 climbed to 20 per cent – and the very slight decline of the share of after-tax expenditures for the necessities of life (food, shelter, clothes). Within the latter group of expenditures there has been a decrease in the share of income spent on food with an almost equal compensatory increase in shelter, while the share spent on clothing has remained practically unchanged. If we consider that in a highly urbanized society we may have to add transport and communication to the traditional "necessities", then we find in fact that the share of these expenditures has slightly increased over the past 20 years. In absolute terms, however, there has been a real increase per capita expenditure at constant prices in all categories of expenditure – suggesting that we have more goods and services in total.

GOVERNMENT EXPENDITURE

Statistics of government expenditure are drawn from administrative records that show departmental spending, and which in some cases can be further identified with specific programs. The classification of these data by function is somewhat arbitrary. In the first place, government activity is generally interrelated, which makes it difficult to separate the varied activities by function, e.g. education in defence expenditure. Secondly, there is an element of ambiguity. For example, do the expenditures on sewers belong to health or public works? Nevertheless, it is useful to classify expenditure by function to highlight certain trends. It is quite significant that the most rapid increase in collective expenditure is in the fields of health, education, and social welfare, which undoubtedly reflect some basic underlying changes in the social structure.

HOUSEHOLD EXPENDITURE

The statistics on household surveys of families permit one to analyze in greater detail the expenditure patterns and distributional characteristics. These complement the estimates on personal consumption in the National Accounts but are not directly comparable due to conceptual differences.

Household surveys on family expenditure have been conducted on a continuous basis since 1953; time series, however, are only possible for the years 1964, 1967 and 1969 due to changes in coverage and definitions from the earlier surveys. The 1964 and 1967 surveys were based on a sample of 11 cities.[5] The 1969 national survey was designed to include as part of the sample the same cities as the earlier surveys.

The 1969 survey was the first family expenditure survey of national scope since 1948 and was designed to provide information for families and unattached individuals living in private households in all areas of Canada, both urban and rural, except the Yukon and the Northwest Territories.

CONCEPTS AND DEFINITIONS

There are some major conceptual differences between family expenditure derived from household surveys, and personal expenditure on consumer goods and services from the National Accounts. Apart from

[4]The difference between consumption and expenditure can be further defined in the concept of 'used up' properties of goods and services. Thus expenditure for an item may take place in one period but is used up over a number of subsequent periods, e.g. consumer durables; similarly goods may be purchased but never consumed, e.g. food wastage.

[5]St. John's, Halifax, Quebec, Montreal, Ottawa, Toronto, Winnipeg, Regina, Saskatoon, Edmonton and Vancouver.

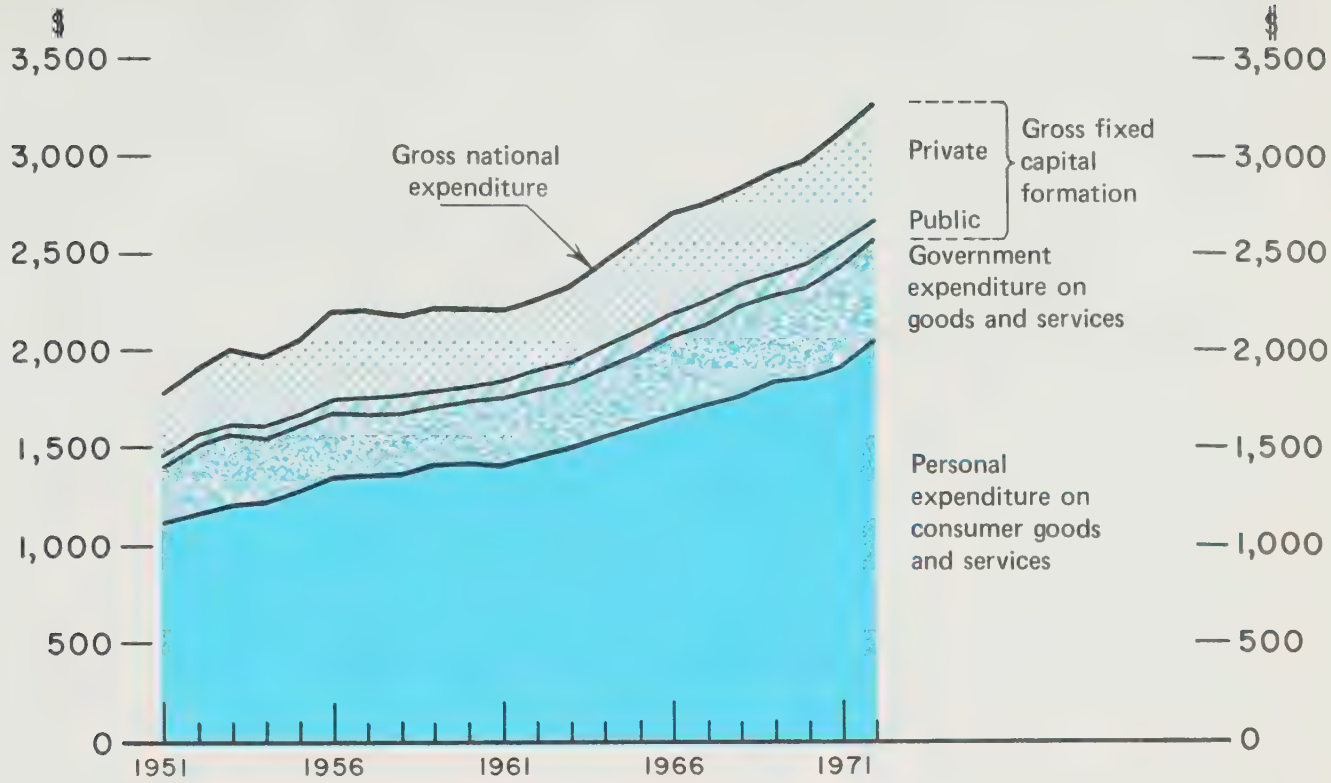
differences in geographic coverage and the more restrictive private-dwelling coverage for the household surveys, the main conceptual differences arise due to the following:

1. The National Accounts include in personal expenditure certain imputed items, e.g. farm products consumed directly in farm households, imputed rent from owner-occupied dwellings, and estimated services rendered by banks and other financial institutions without specific charge. (These at least are fairly well defined, and in total they added $3,720 million to personal expenditure in 1969, i.e. 7.8 per cent of the total).
2. Government hospital and medical insurance premiums, and fees for motor vehicle licences and permits are included with direct taxes in the National Accounts rather than in personal expenditure on consumer goods and services.
3. Operating expenses of associations of individuals or private non-profit corporations such as universities, churches, etc., are incorporated in personal expenditure on consumer goods and services. In family expenditure, only the fees of university and other non-profit organizations are included.

FAMILY

The spending unit is defined as a group of persons dependent on a common or pooled income for the major items of expense, and living in the same dwelling, or as one financially independent individual living alone. Never-married sons or daughters living with their parents are considered as part of their parents' spending unit. In the great majority of cases, the members of spending units of two or more are related by blood, marriage or adoption and are thus consistent with the "economic family" definition employed in surveys of family income – "a group of individuals sharing a common dwelling unit and related by blood, marriage or adoption". (The definition of family employed by the population census restricts the family to husband, wife and any unmarried children living with them, or one parent and unmarried children.) It should be noted that according to the "economic family" definition, unrelated persons living in the same household would be counted as unattached individuals, whereas in the expenditure survey it is possible for two or more unrelated persons to comprise one spending unit.

Chart 8.1
GROSS NATIONAL EXPENDITURE(1) PER PERSON



(1) In 1961 constant dollars.

Chart 8.2
DISPOSITION OF TOTAL PERSONAL INCOME

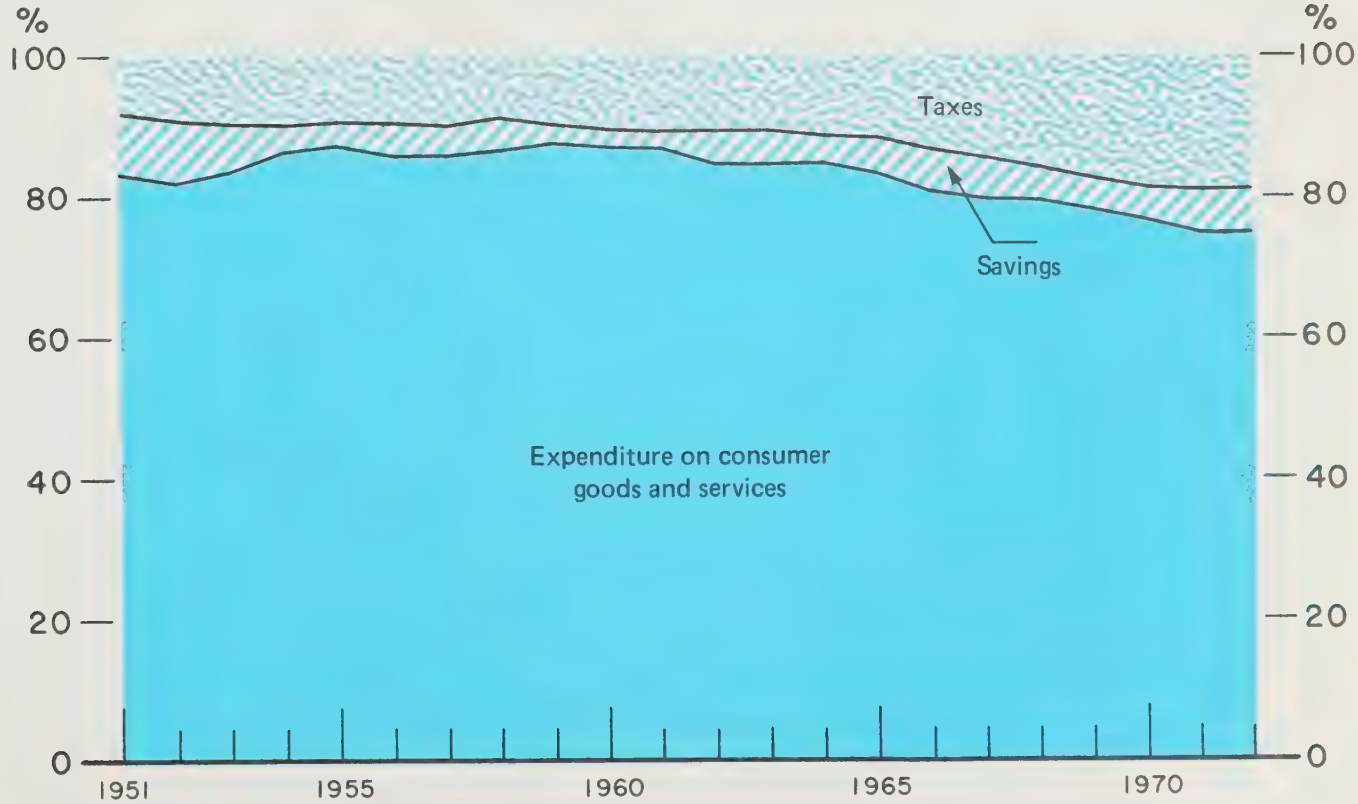


Table 8.3
PERSONAL EXPENDITURE ON CONSUMER GOODS AND SERVICES

	1952	1962	1972	1952	1962	1972
	millions of 1961 dollars			per cent		
Food and non-alcoholic beverages	3,457	4,902	6,984	20.3	18.1	15.6
Alcoholic beverages and tobacco	1,171	1,829	2,953	6.9	6.8	6.6
Clothing and footwear	1,576	2,361	3,754	9.3	8.7	8.4
Gross rent, fuel and power	2,567	5,078	9,129	15.1	18.7	20.4
Furnishings, household equipment and services	1,905	2,792	4,825	11.2	10.3	10.8
Medical care and health services	927	1,180	1,372	5.4	4.4	3.1
Transportation and communication	2,085	3,819	6,979	12.3	14.1	15.6
Recreation, education and entertainment	1,008	1,709	3,978	5.9	6.3	8.9
Personal goods and services[1]	2,317	3,424	4,738	13.6	12.6	10.6
TOTALS	17,013	27,094	44,712	100.0	100.0	100.0

1) Includes, for example, jewellery, toilet articles, haircuts, and financial, legal and other services.

Chart 8.4
MAJOR ITEMS OF EXPENDITURE ON CONSUMER GOODS AND SERVICES

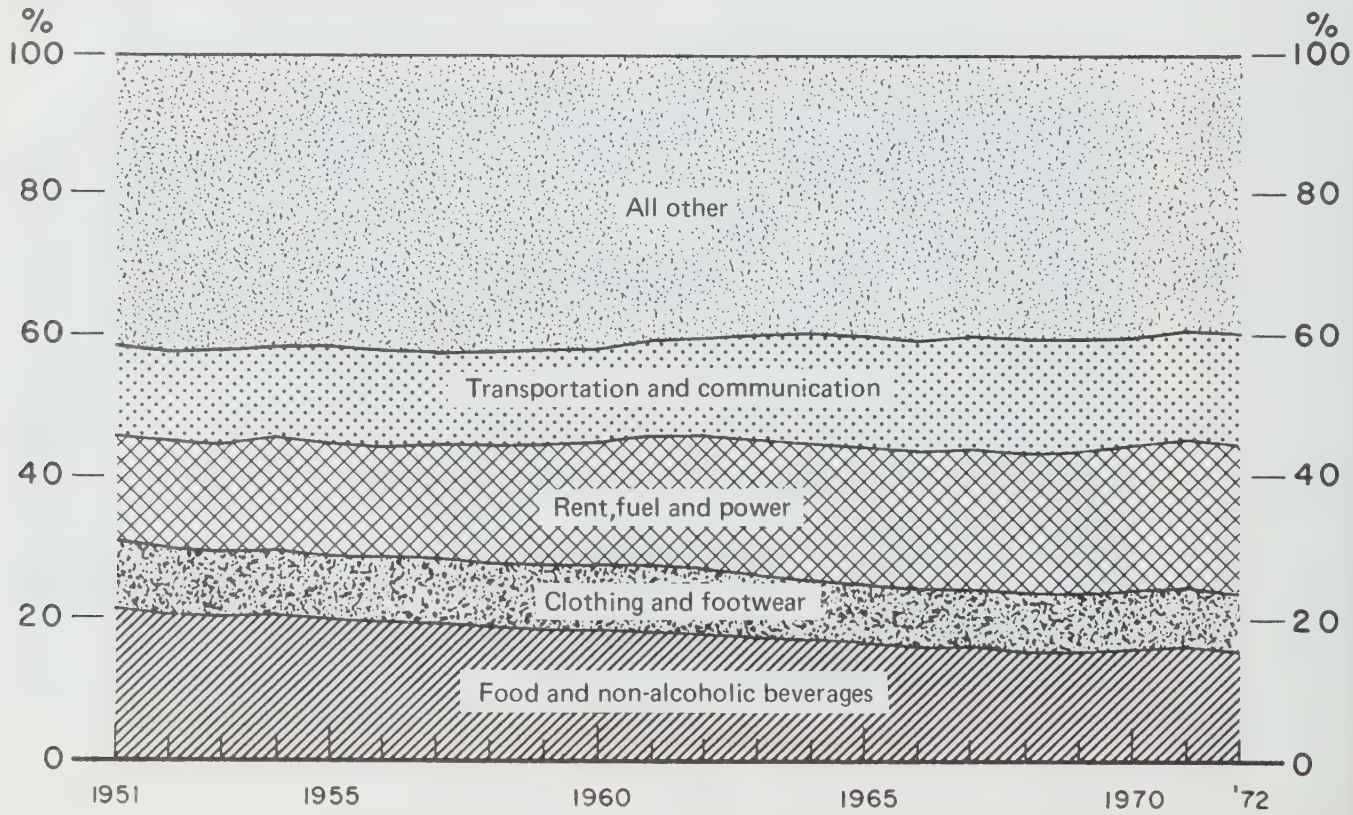
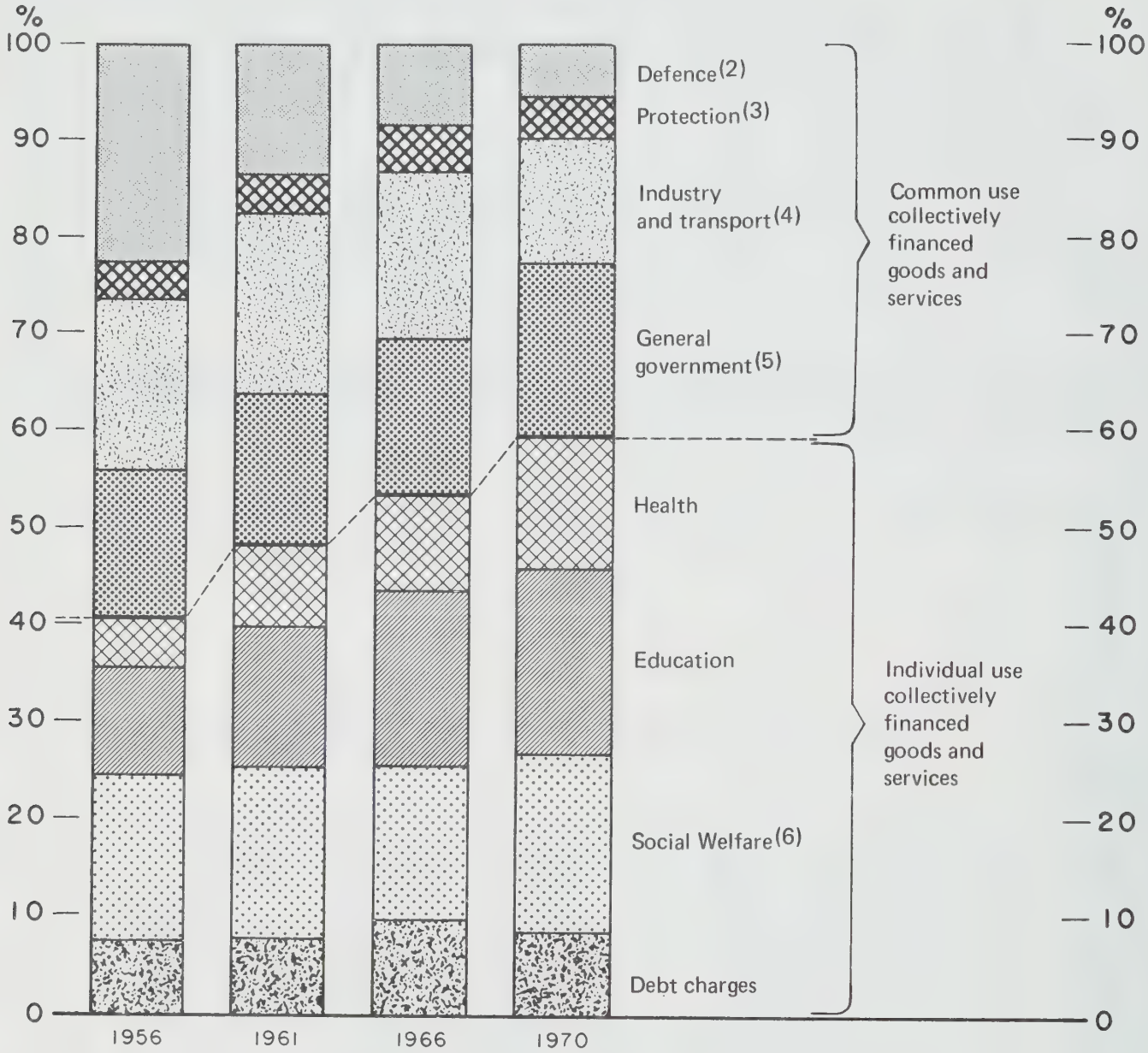


Table 8.5
EXPENDITURE OF ALL LEVELS OF GOVERNMENT, BY FUNCTION[1]

Function	1956	1961	1966	1970
	millions of dollars			
A. Common-use, collectively financed goods and services:[2]				
General government	486.9	569.3	946.1	1,972.8
Defence services and mutual aid	1,819.4	1,647.0	1,664.0	1,724.5
Protection of persons and property	308.4	487.1	846.1	1,354.1
Transportation and communication	1,002.6	1,422.4	2,260.8	3,246.6
Natural resources and primary industries	288.4	604.9	903.1	537.7
Contribution to own government enterprises	120.3	198.9	213.2	307.6
Other expenditures	750.5	1,289.7	2,129.1	3,654.8
Sub-totals	4,776.5	6,219.3	8,962.4	12,798.1
Per cent of total	59.6	51.8	46.6	40.7
B. Individual-use, collectively financed goods and services:[2]				
Health	393.9	1,030.6	1,924.6	4,224.0
Education	906.2	1,753.9	3,484.4	5,993.0
Social welfare	1,073.5	1,743.4	2,642.1	5,398.6
Veterans' pensions and other benefits	261.4	337.3	392.0	409.0
Debt charges, excluding debt retirement	597.9	932.6	1,820.1	2,617.7
Sub-totals	3,232.9	5,797.8	10,263.2	18,642.3
Per cent of total	40.4	48.2	53.4	59.3
TOTAL EXPENDITURE	8,009.4	12,017.1	19,225.6	31,440.4
Total expenditure as a percentage of GNP	25.0	30.3	31.1	36.4
Government transfer payments to persons[3]	1,746	2,709	3,750	7,021
Transfer payments as a percentage of total expenditure[4]	21.8	22.5	19.5	22.3

1) Consolidated accounts of gross expenditure by federal, provincial and municipal governments.
2) The division of the functional categories between an A and B listing are to be taken as merely surrogates for distinguishing collectively financed goods that are collectively consumed from those that are collectively financed and individually consumed. Clearly, this distinction is not pure, as there are many shades of grey, with perhaps defence expenditure as the extreme case of the A group and veterans' pension as the extreme example of the B group. Health expenditure is probably a good example of the grey area, with public health clearly being collectively consumed and medicare being individually consumed.
3) Rounded to the nearest million dollars.
4) Interest payments on public debt are excluded.

Chart 8.6
EXPENDITURE OF ALL LEVELS OF GOVERNMENT, BY FUNCTION(1)



1) Consolidated accounts of gross expenditure by federal, provincial and municipal governments.
2) Includes mutual aid.
3) Protection of persons and property.
4) Includes transportation and communication, natural resources and primary industries and government enterprises.
5) Includes other expenditures.
6) Includes veterans' pensions.

Table 8.7
PATTERNS OF FAMILY EXPENDITURE[1]

	1964	1967	1969
		per cent	
Food	21.0	19.5	17.6
Shelter[2]	16.3	15.5	15.6
Living quarters	13.0	12.5	12.9
Water, power and fuel	3.3	2.9	2.6
Household operation	4.0	4.0	3.8
Furnishings and equipment	4.5	4.4	4.6
Household appliances	1.2	1.1	1.1
Other	3.2	3.2	3.4
Clothing	8.7	8.5	8.1
Personal care	2.3	2.3	2.3
Medical and health care	3.9	3.4	3.2
Smoking and alcoholic beverages	4.0	4.0	3.6
Travel and transportation	12.4	11.6	12.1
Automobile (and truck)	10.4	9.5	9.6
Purchase	5.4	4.1	4.4
Operation	5.0	5.3	5.2
Other	1.9	2.2	2.4
Recreation	3.3	3.6	3.6
Reading	0.6	0.7	0.6
Education	0.9	0.9	1.0
Miscellaneous expenses	1.3	1.3	1.4
Total current consumption	83.1	79.6	77.5
Personal taxes	9.2	12.9	15.4
Security	4.8	5.1	4.7
Gifts and contributions	2.8	2.4	2.3
TOTAL EXPENDITURE	100.0	100.0	100.0

1) For a definition of "family" see Concepts and Definitions. The sample for the three years was based on 11 cities: St. John's, Halifax, Quebec, Montreal, Toronto, Ottawa, Winnipeg, Regina, Saskatoon, Edmonton and Vancouver.
2) Does not include repayment of the principal of the mortgage.

Table 8.8
PATTERNS OF FAMILY EXPENDITURE[1]

		1964	1967	1969
FAMILY CHARACTERISTICS:				
Average family size[2]		3.8	3.8	3.6
No. of children under 16		1.4	1.4	1.3
No. of adults 16-64		2.2	2.3	2.2
No. of adults 65 and over		0.2	0.2	0.2
No. of full-time earners		1.1	1.1	1.0
Age of head		45.0	44.6	44.1
Net income before taxes	$	7,065	9,061	10,417
Other money receipts	$	146	212	225
Net change in assets and liabilities	$	280	507	329
			per cent	
Homeowners		51	53	55
Car or truck owners		71	75	78
With wife employed full-time		15	16	16
			dollars	
AVERAGE DOLLAR EXPENDITURE:[3]				
Food		1,476	1,722	1,835
Shelter[4]		1,147	1,368	1,621
Living quarters		915	1,110	1,351
Water, power and fuel		232	259	271
Household operation		282	349	397
Furnishings and equipment		313	385	475
Household appliances		85	101	116
Other		228	284	359
Clothing		614	749	845
Personal care		161	207	238
Medical and health care		277	299	336
Smoking and alcoholic beverages		279	354	376
Travel and transportation		870	1,028	1,252
Automobile (and truck)		733	838	998
Purchase		379	366	455
Operation		354	472	544
Other		137	190	253
Recreation		230	314	376
Reading		44	59	65
Education		64	79	104
Miscellaneous expenses		89	118	144
Total current consumption		5,846	7,031	8,063
Personal taxes		650	1,135	1,607
Security		336	453	491
Gifts and contributions		200	212	244
TOTAL EXPENDITURE		7,031	8,831	10,406

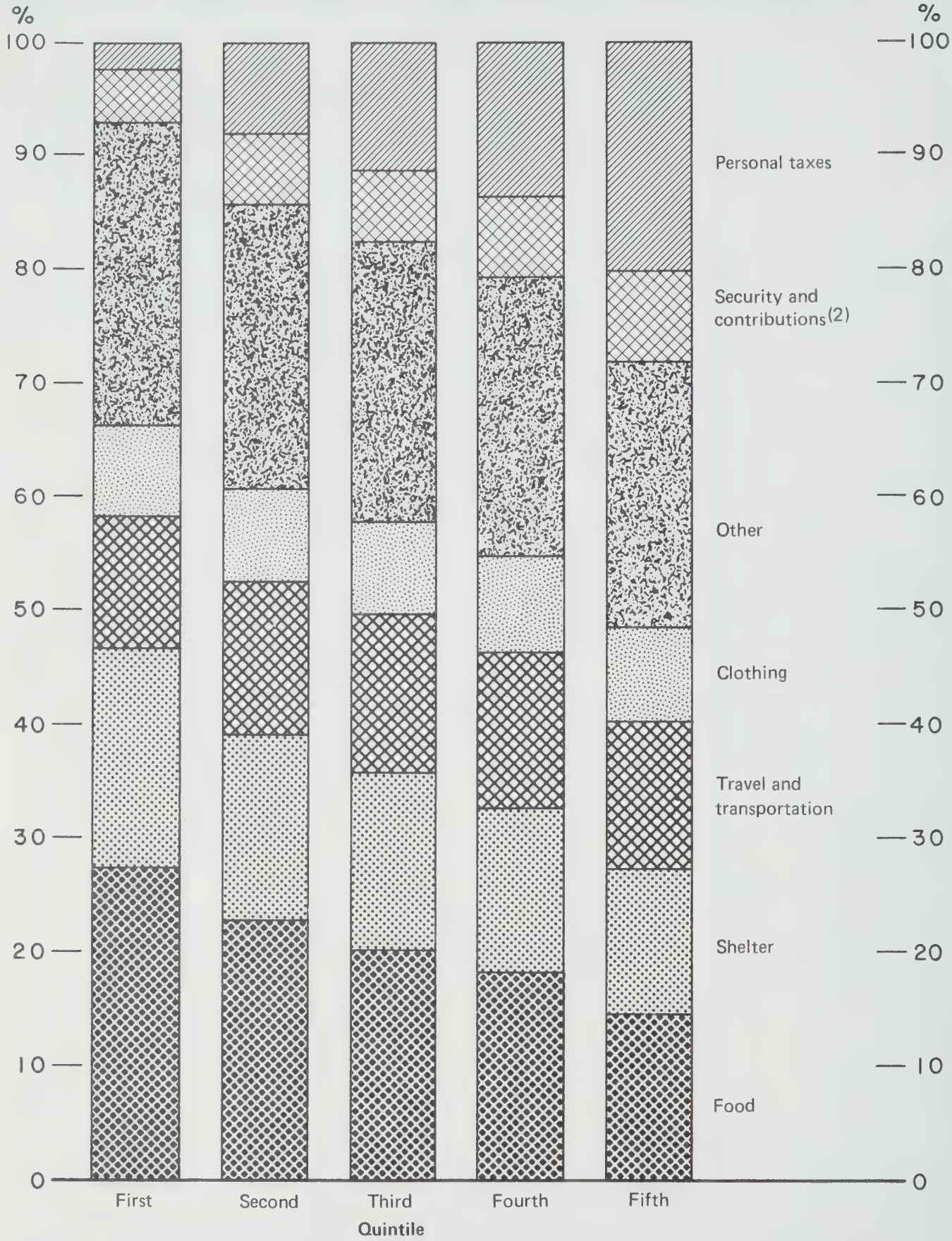
1) See footnote 1, Table 8.7
2) Family size: Family size or "year-equivalent persons" was computed by dividing the total number of weeks during which family members belonged to the unit in the survey year by 52 weeks. In this way, part-year members were counted as fractions of a year-equivalent person.
3) Average per family: The average dollar expenditure per family was based on all families in each class, whether or not they reported purchases of a particular item.
4) See footnote 2, Table 8.7.

Table 8.9
SHELTER EXPENSES OF TENANTS AND HOMEOWNERS, MAJOR CITIES[1]

	Tenants	HOMEOWNERS	
		Home without mortgage	Home with mortgage
		dollars	
Shelter (total):			
1964	1,124	862	1,375
1967	1,304	931	1,616
1969	1,513	1,234	1,930
Living quarters:			
1964	974	562	1,059
1967	1,146	611	1,261
1969	1,354	880	1,554
Water, power and fuel:			
1964	150	300	317
1967	158	319	355
1969	159	354	376
		percentage of total expenditure	
Shelter (total):			
1964	17.2	13.2	16.8
1967	16.8	11.6	15.5
1969	16.5	12.1	16.0
Living quarters:			
1964	14.9	8.6	12.9
1967	14.8	7.7	12.0
1969	14.8	8.6	12.8
Water, power and fuel:			
1964	2.3	4.6	3.9
1967	2.0	4.0	3.4
1969	1.7	3.5	3.1

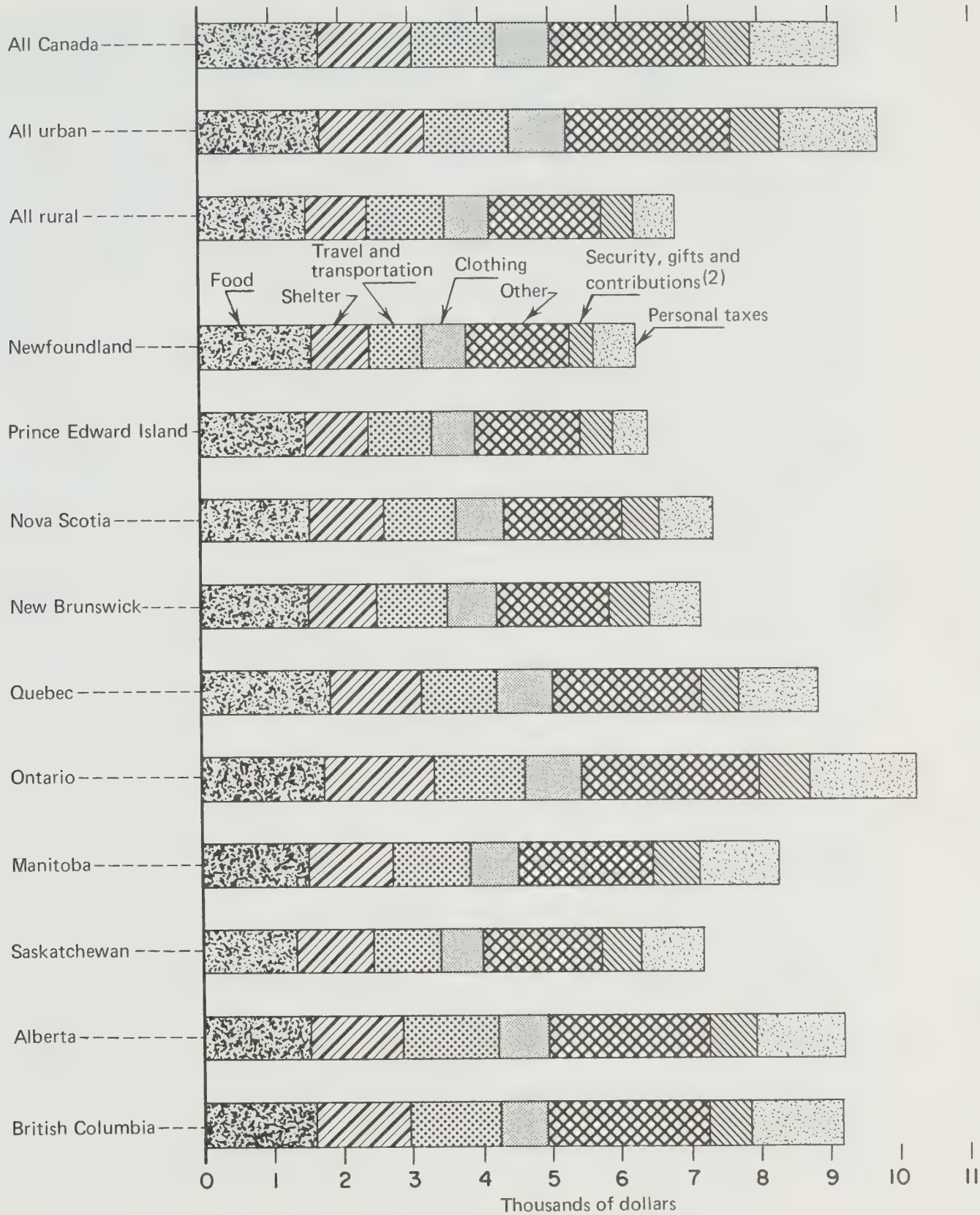
1) See footnote 1, Table 8.7.

Chart 8.10
PATTERNS OF FAMILY(1) EXPENDITURE BY FAMILY INCOME QUINTILE, 1969



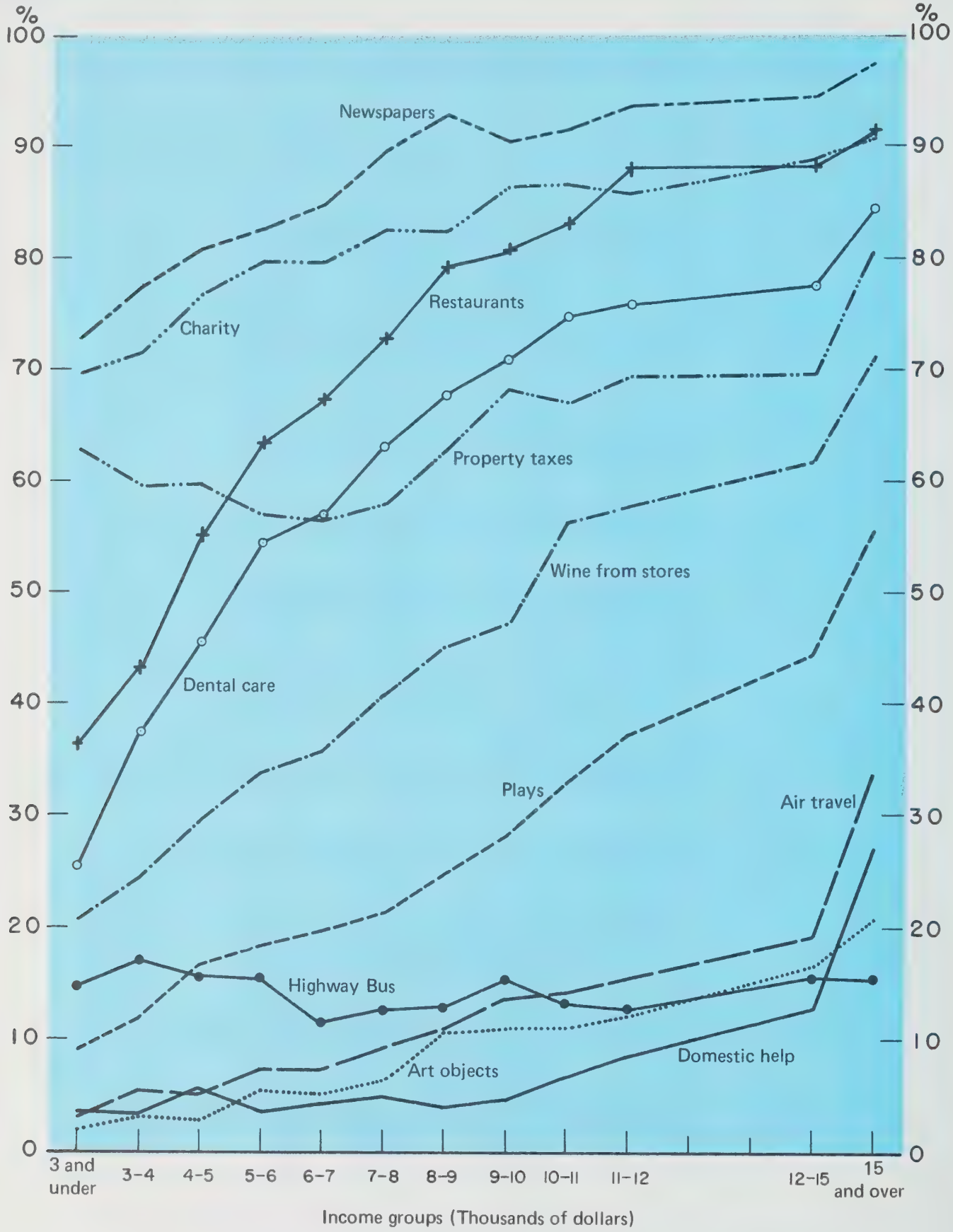
1) For the definition of the family see Concepts and Definitions.
2) Includes life insurance, unemployment insurance and pension plans.

Chart 8.11
PATTERNS OF FAMILY(1) EXPENDITURE BY PROVINCE, 1969



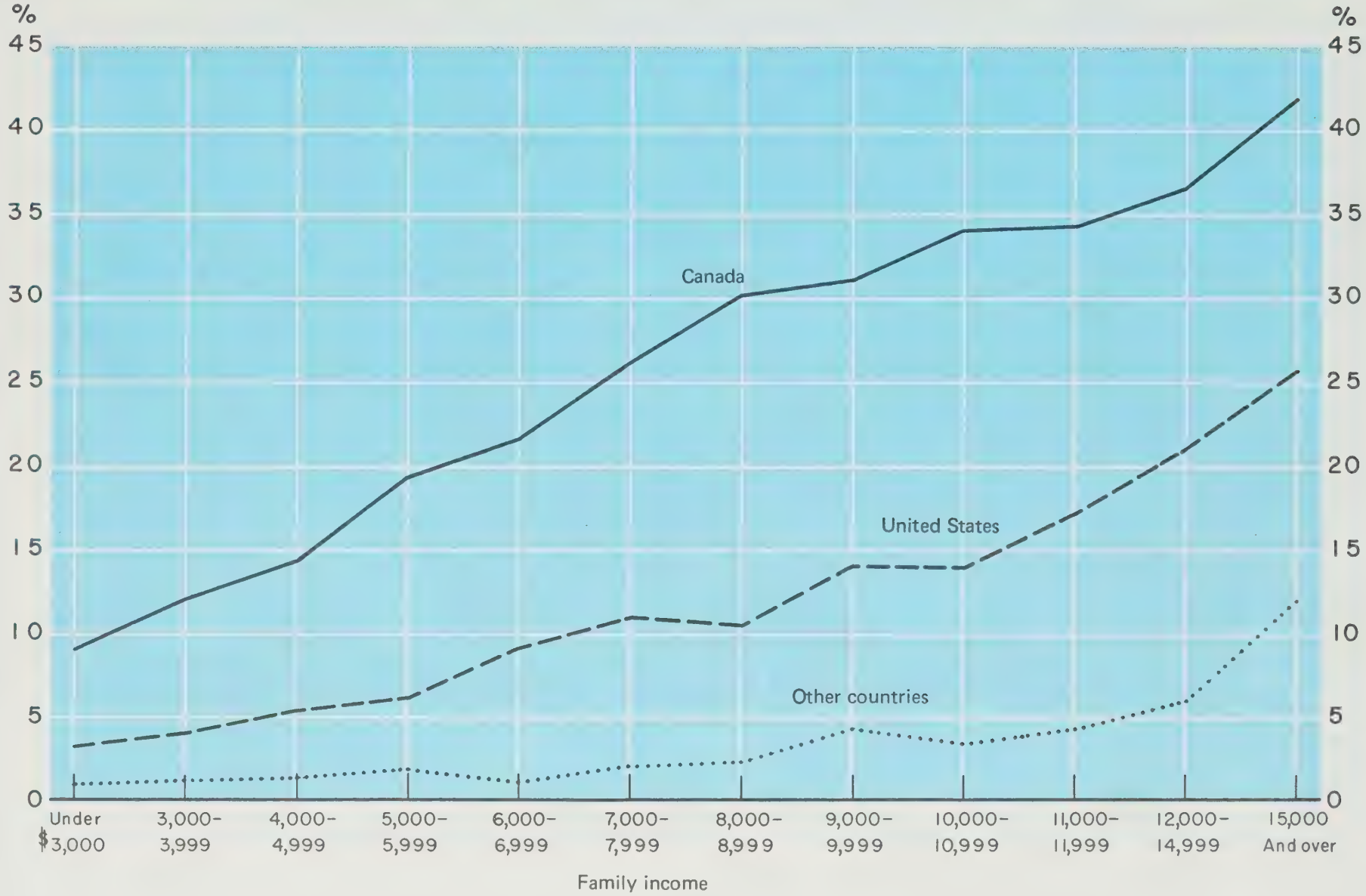
1) For the definition of the family see Concepts and Definitions.
2) Includes life insurance, unemployment insurance and pension plans.

Chart 8.12
FAMILIES(1) REPORTING SELECTED EXPENDITURES, BY INCOME GROUP, 1969



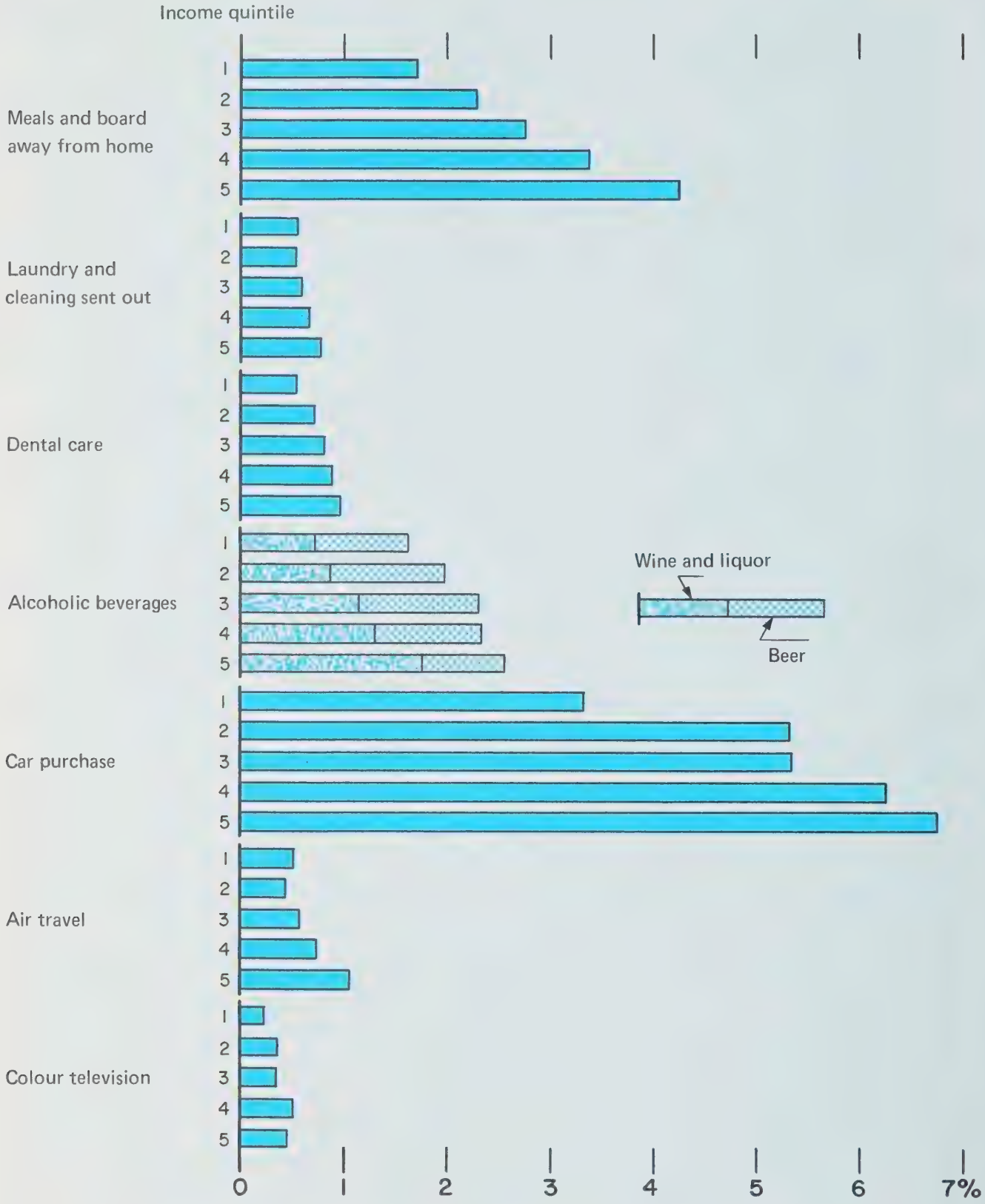
1) For the definition of the family see Concepts and Definitions.

Chart 8.13
FAMILIES REPORTING EXPENDITURE ON FOOD WHILE ON VACATION, 1969(1)



1) For the definition of the family see Concepts and Definitions.

Chart 8.14
EXPENDITURE(1) ON SELECTED ITEMS BY FAMILY(2) INCOME QUINTILE, 1969(3)



1) As a percentage of current consumption which is total family expenditure excluding personal taxes, security and contributions.
2) For the definition of the family see Concepts and Definitions.
3) In urban centres of 30,000 or more population.

Quality of the Environment

9

Man's knowledge of his planet has evolved slowly through a succession of errors; typical of the strange beliefs that once flourished was the idea that the earth was supported by a giant turtle. Today, we are subject to more subtle misconceptions – about the capacity of our environment to absorb punishment, about the limitlessness of our natural resources, about our place in the complex mosaic of elements and life forms that make up our physical world.

Abundance tends to breed careless use of resources, whereas scarcity creates consciousness of the need for prudent management. Availability of fresh air and clean water was taken for granted as long as supplies were regarded as unlimited. Virtually inexhaustible wealth in other global resources, such as land, forests, fish and wildlife, has also been assumed until fairly recently.

Today a general consensus has emerged that many world problems hinge primarily on the fragile balance between the limited resources of the physical world, and the aspirations of a growing population for higher standards of living and thus greater demands on those resources and the whole environment. While the impact of a highly technological economy has certainly contributed in the past to damaging the environment, faith now is frequently pinned on the ability of new technology to save the world from ultimate destruction, by the provision of techniques for re-use, recycling or regeneration of resources and the control of pollutants.

The most visible environmental problems have been those of air and water pollution. Other direct pollutants, such as noise and radioactivity, have also received attention. Recently, the problems resulting from resource consumption have become more noticeable, especially in connection with non-renewable energy supplies. A third area of environmental concern, which in some senses is all-encompassing, is the problem of land use, in its widest meaning – that is, how human activities are distributed and concentrated throughout the biosystem. Interest has been focussed on the problems of density in urban areas, although the biological impact of such large-area activities as forestry, agriculture, transport, and hydro-power generation may soon be seen to be of equal importance.

INFORMATION ON THE ENVIRONMENT

In developing statistics on the "state of the environment", careful consideration must be given to providing suitable and objective information for different segments of the public that will have different interests, needs and concerns. There will be regional, local, age grouping, occupational, societal, industrial, even political variants. Some are worried by noise, by automobile congestion, by unsightly garbage dumps, by plumes from factory chimneys, by scum in streams and harbours, and so on. Others are concerned about real or potential lack of purity of drinking water, of bathing waters, of city air, of the fish they sometimes eat. Some are affected by direct effects of environmental degradation on renewable resources, such as fish, wildlife, forest and agriculture products.

To assist in the judicious management and protection of the environment, it is therefore necessary to collect and analyze data that can be used to assess environmental quality not only in relation to scientific guidelines, but also in relation to public perceptions and objectives.

Concern with the environment as a single system may be recent, but many statistics that have environmental relevance have been collected for a long time. The problem is that these series have been developed for separate and specific purposes, and thus integrating them often proves difficult if not impossible. For example, we have a series on acreage planted under different kinds of crops, from the Agricultural Census; elsewhere, there is some information about the area of land covered by urban and residential development. We have no integrated series, however, showing how these land uses relate; farmland may be lost to urban uses in one area, marginal farms may revert to forest in a second, while in a third, forest land may be brought under cultivation. We have little idea of the interrelation of these various changes. Similar problems arise in studying other parts of the environment.

The environment, whether air, land or water, is evidently very complex and may contain many contaminants, some with much more potential danger than others. This makes the aggregation of environmental data very difficult. While it is of value to state, for instance, that the average concentration of sulphur dioxide at a particular location in a particular city is X parts per million over a period of a year, it is important to recognize that there are peaks in concentration, lasting for a few hours or less, and their frequency may be of much more consequence to the health of the people or other living things. Consequently, difficult methodological issues must be resolved before acceptable series can be developed.

It is important that, when statistics of environmental quality are presented, the purpose for which they are to be used is clearly understood. Unless this is so, misunderstanding will be the result.

In whichever way the natural environment is considered, there is a great need for more data for a wide variety of purposes. Researchers need very detailed information, managers and policymakers need information at an intermediate level of detail, while the public needs summary knowledge of the state of the environment, and how it is changing.

In collecting and processing this mass of data, there are special problems which are less germane in other areas of statistics. Most importantly, statistics on the environment are distinguished by the peculiar importance in them of geography and of actual physical location on the face of the earth.

The increased need for environmental statistics requires perhaps new perceptions on the part of both the data-gatherers and users; new breakdowns, such as by watersheds and ecological regions, will be needed. This requirement may, however, lead to organizational problems since ecosystems extend beyond the boundaries of any one province or country and the systems can only be studied and described as entities if the political units that contain them agree to collect and share information, using common standards and definitions.

Whereas the emphasis has been on "hard" statistics in the past, the new demands may be for an extension of the "soft" data dealing with new social values, perceptions and judgments. In the envisaged new effort, it is apparent that any reworking of traditional data must be accompanied by the production of new series. Such work can only move forward in step with the development of useful organizing concepts and models, intellectual tools that are essential in such a vast and formless field as the environment.

Economists have made much use of the basic concepts of accounting as a way of relating stocks and flows of economic goods. There is technical discussion at present on the possibility of using an accounting framework to look at environmental problems. One possible approach is to extend existing economic-accounts systems to include environmental effects which have not heretofore been treated as economic costs or benefits. Eventually, the effect of an investment in a specific industry might be analyzed for both conventional economic value and environmental costs and benefits.

Consideration is currently also being given to the production of accounts based on the principle of conservation of matter, which would trace the flow of specific materials between different producers and users. The essential complication of these systems is that they have no single unit of account, no universal exchange medium or "dollar", that would be equally meaningful for all environmentally important materials (for example, a pound of mercury and a pound of nitrogen are vastly different in their possible environmental impacts). This problem drastically increases the practical difficulties of developing and managing such statistical systems.

It is apparent that the evident complexity of the physical environment suggests that the development of environmental indicators would be a useful endeavour. However, a great deal of development work lies ahead, particularly since existing data and statistical series are neither comprehensive nor appropriately integrated from the environmental point of view. The following tables are consequently selected at this stage merely for purposes of illustrating some of the areas of environmental concerns.

DATA

The data selected exemplify the problems previously discussed; with few exceptions, these data are by-products of other work and the only geographic breakdowns available are on the basis of political jurisdiction.

Sulphur dioxide and suspended particulate levels in the air over commercial areas are shown for a number of Canadian cities. These cities have been selected from those with monitoring stations in commercial urban locations, reporting their results to Environment Canada.

The relative contributions of different sources of the major air pollutants are also illustrated.

The monitoring network for radioactive fallout was set up in response to public concern about the dangers of nuclear bomb testing in the atmosphere. Here is a case where an environmental problem can be seen receding in magnitude. However, the long-term effects of the fallout could significantly mar this apparent improvement.

Data on the production and use of energy have been included because they impinge in many ways upon our daily life. They are summarized from a detailed publication that traces energy use and production in Canada by province and economic sector, and have been corrected for inter-industry exchanges and losses.

Because of its major social importance, housing is covered separately in Chapter 10. Information on urban density has been included here because it relates more closely to urban structures and services than to housing *per se*. Density of settlement is calculated on a census tract basis. Thus, small concentrations of high density, such as single high-rise apartments, may not show up if they are distributed throughout otherwise low-density areas.

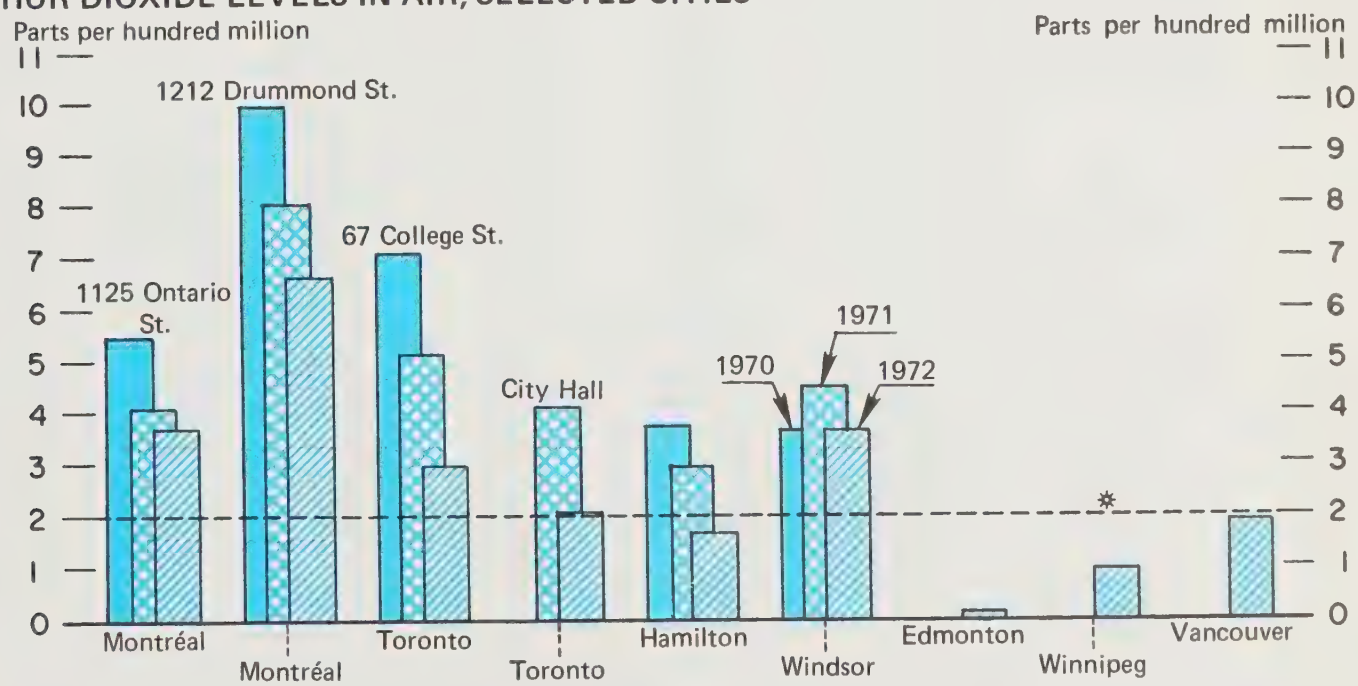
Major land uses in Canada, together with a time series on acreage of improved agricultural land ("improved" means that woodlots and other uncultivated non-grazing lands, which happen to be part of farm properties, have been excluded from the measurement), are included because of their importance as underlying environmental factors.

Table 9.1
SULPHUR DIOXIDE LEVELS IN AIR, SELECTED CITIES[1]

	1970	1971	1972
	parts per hundred million		
Halifax	..	..	3.25
Saint John	..	..	4.40
Montreal, 1125 Ontario St.	5.43	4.06	3.70
Montreal, 1212 Drummond St.	9.94	8.01	6.61
Hull	2.38	1.65	1.33
Ottawa	4.46	2.15	3.03
Toronto, 67 College St.	7.10	5.17	2.97
Toronto, City Hall	..	4.10	2.05
Hamilton	3.72	2.91	1.65
London	..	1.42	.58
Sarnia	..	2.65	1.93
Windsor	3.64	4.25	3.62
Winnipeg	..	..	.97
Regina	..	..	.03
Edmonton	..	..	.10
Calgary	..	..	.45
Vancouver	..	..	1.89
Victoria	..	..	1.53

1) Annual arithmetic means; figure is estimated when data are not available for a complete year. Readings are for stations in commercial downtown core areas.

Chart 9.2
SULPHUR DIOXIDE LEVELS IN AIR, SELECTED CITIES (1)



1) Annual arithmetic means; figure is estimated when data are not available for a complete year. Readings are for stations in commercial downtown core areas.

✲ *National Ambient Air Objectives — maximum acceptable levels.*

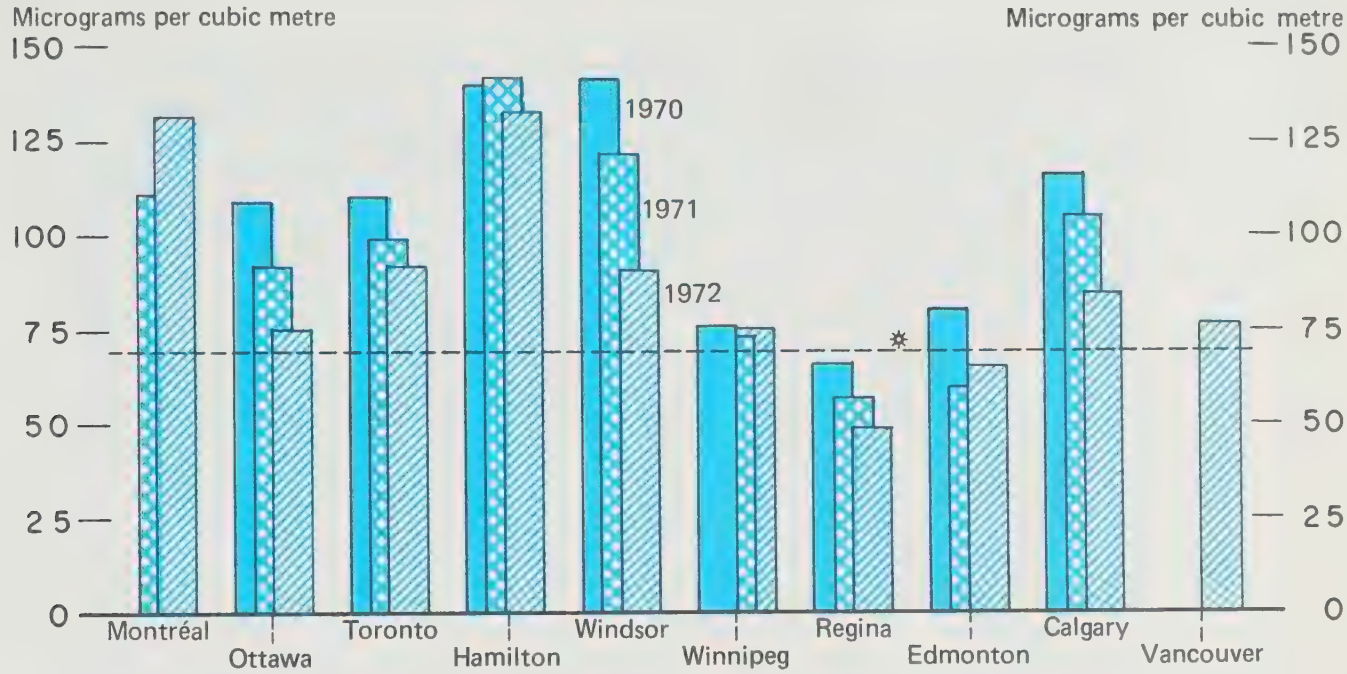
Table 9.3
SUSPENDED PARTICULATE LEVELS IN AIR, SELECTED CITIES[1]

	1970	1971	1972
	micrograms per cubic metre[2]		
St. John's	..	..	54
Fredericton	33	36	..
Saint John	61	54	46
Moncton	77	54	54
Quebec	..	..	83
Chicoutimi	..	..	75
Montreal	..	111	132
Hull	77	73	69
Ottawa	109	92	75
Toronto	110	99	92
Hamilton	140	142	133
Peterborough	..	61	..
London	..	125	95
Sarnia	..	105	98
Windsor	142	122	91
Sudbury	..	110	..
Sault Ste. Marie	..	55	66
Thunder Bay	..	69	60
Winnipeg	76	73	75
Regina	66	57	49
Saskatoon	..	72	68
Moose Jaw	..	..	48
Prince Albert	..	..	51
Edmonton	80	60	66
Calgary	117	105	85
Red Deer	71	64	58
Medicine Hat	67	57	57
Lethbridge	34	41	37
Vancouver	..	..	77
Victoria	52	59	44

1) Annual geometric mean; figure is estimated when data are not available for a complete year. Readings are for stations in commercial downtown core areas.
2) One microgram is one millionth (10^{-6}) of a gram.

Chart 9.4

SUSPENDED PARTICULATE LEVELS IN AIR, SELECTED CITIES(1)

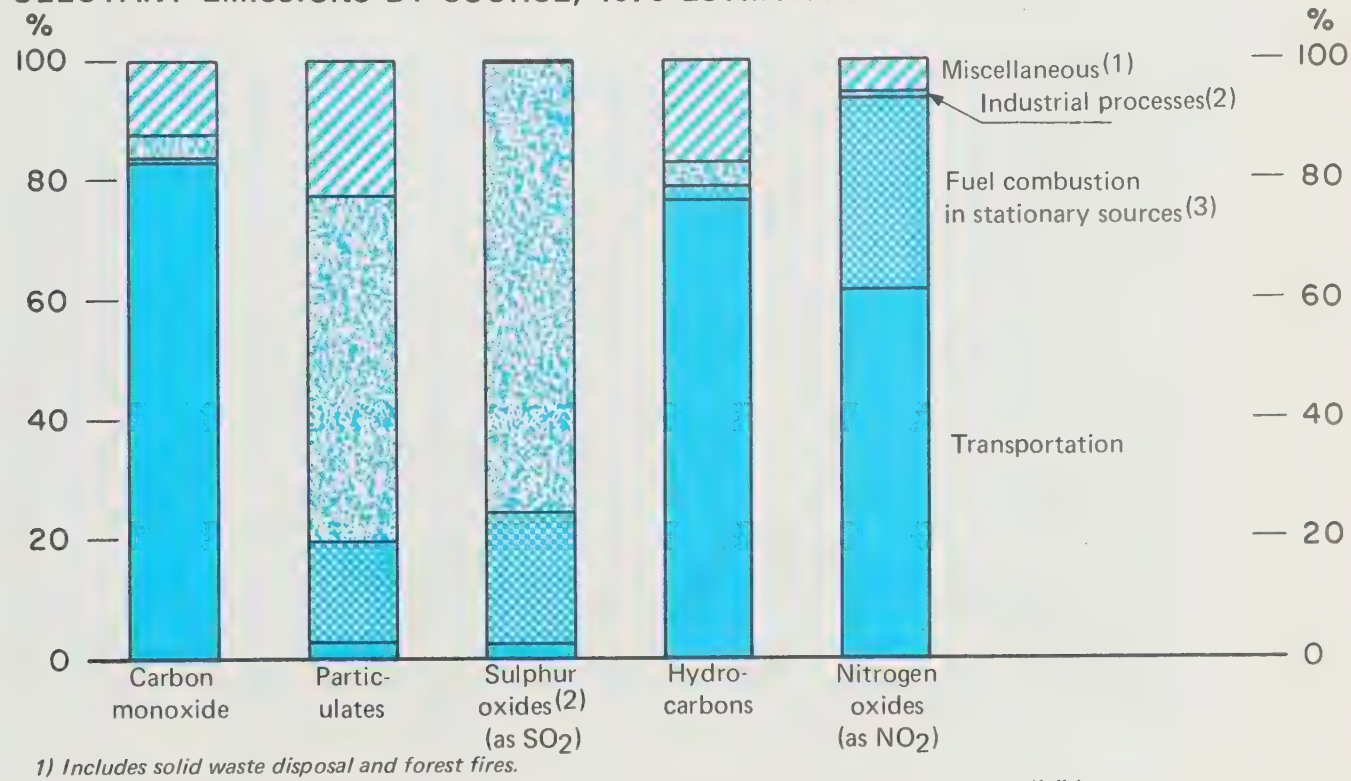


1) Annual geometric means; figure is estimated when data are not available for a complete year. Readings are for stations in commercial downtown core areas.

✲ National Ambient Air Objectives — maximum acceptable levels.

Chart 9.5

AIR POLLUTANT EMISSIONS BY SOURCE; 1970 ESTIMATES



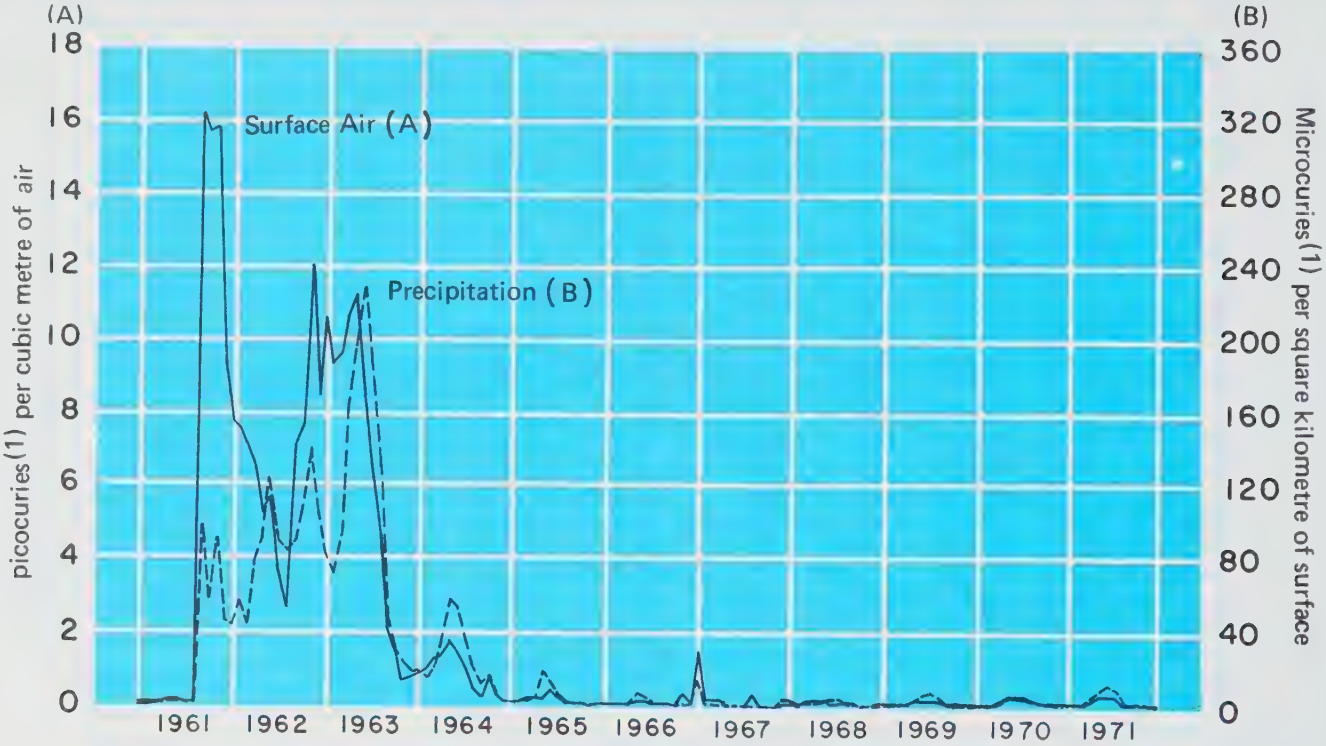
1) Includes solid waste disposal and forest fires.

2) Major industrial source is primary copper and nickel production; miscellaneous sources are negligible.

3) Includes utilities and power generation, industrial and commercial uses, and residential heating.

Chart 9.6

BETA RADIOACTIVITY IN PRECIPITATION AND IN SURFACE AIR



1) pico – one trillionth (10^{-12}); micro – one millionth (10^{-6}); curie – unit of radioactivity.

Chart 9.7

RADIOACTIVE FALLOUT CONTENT IN WHOLE MILK

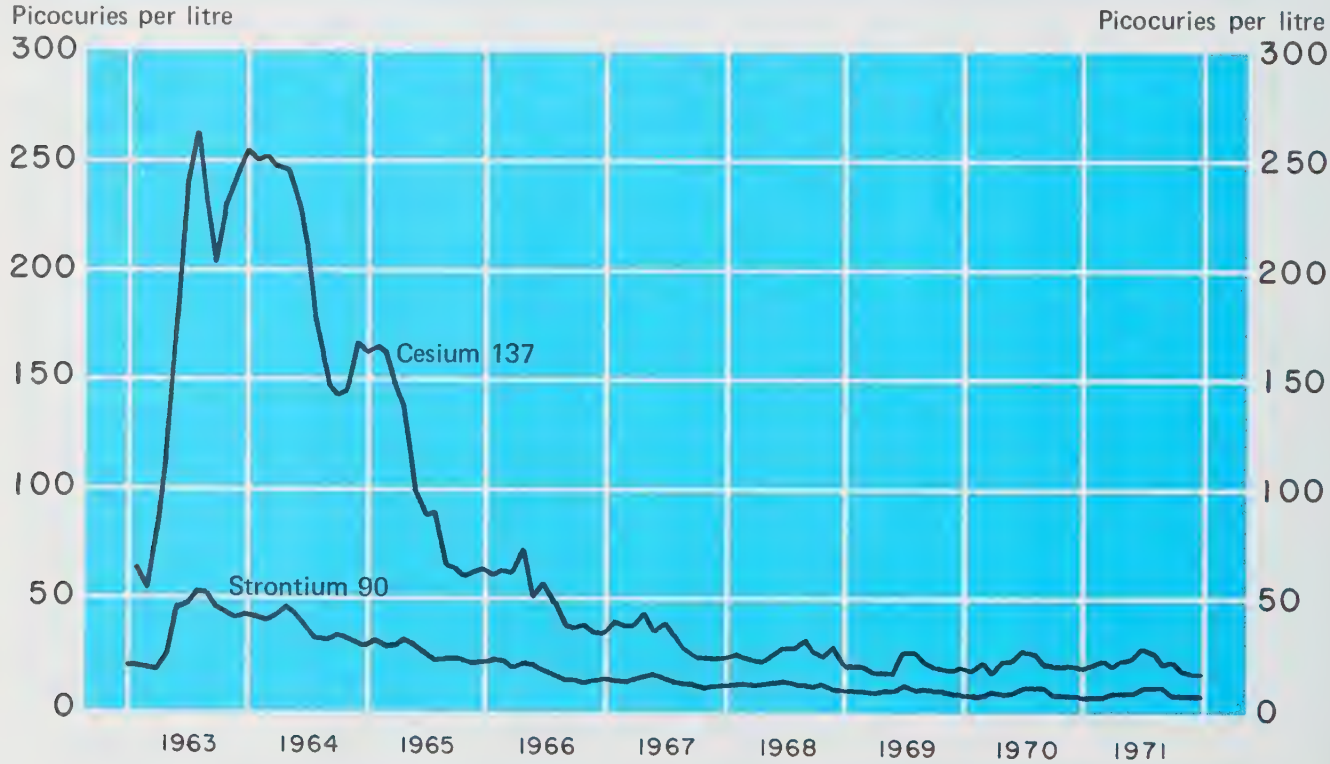


Chart 9.8

PERCENTAGE OF ENERGY SUPPLIED BY DIFFERENT SOURCES

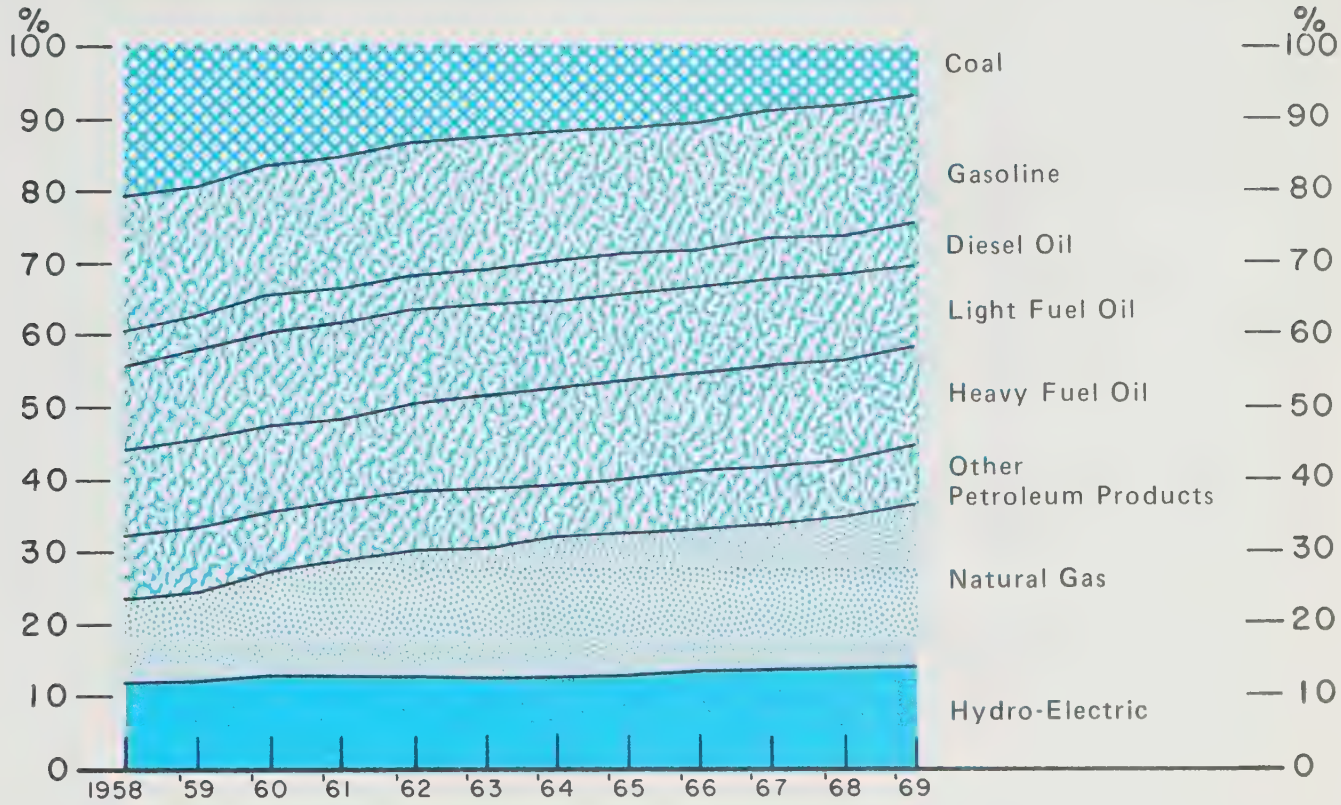
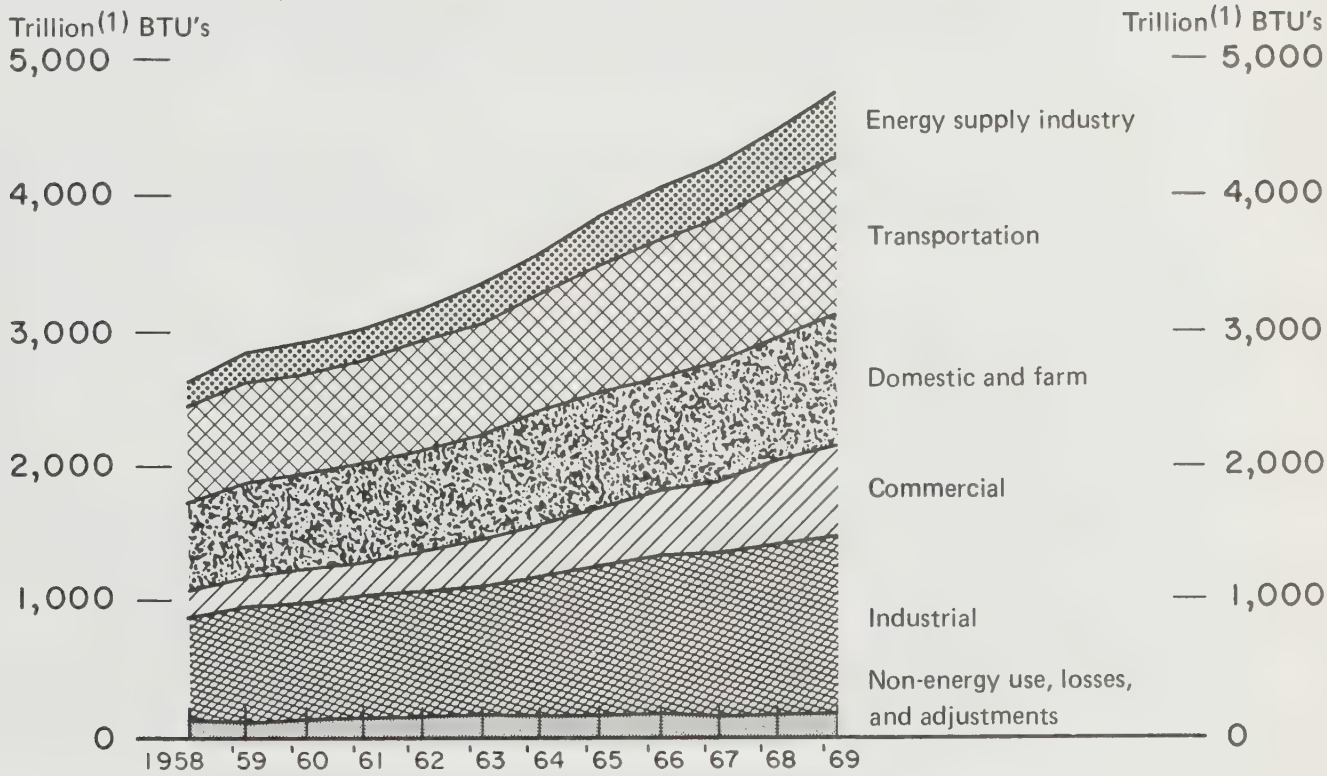


Chart 9.9

ENERGY CONSUMPTION, BY SECTOR OF ECONOMY



1) trillion = 10^{12}.

Chart 9.10

DISTRIBUTION OF POPULATION BY DENSITY OF SETTLEMENT, 1971

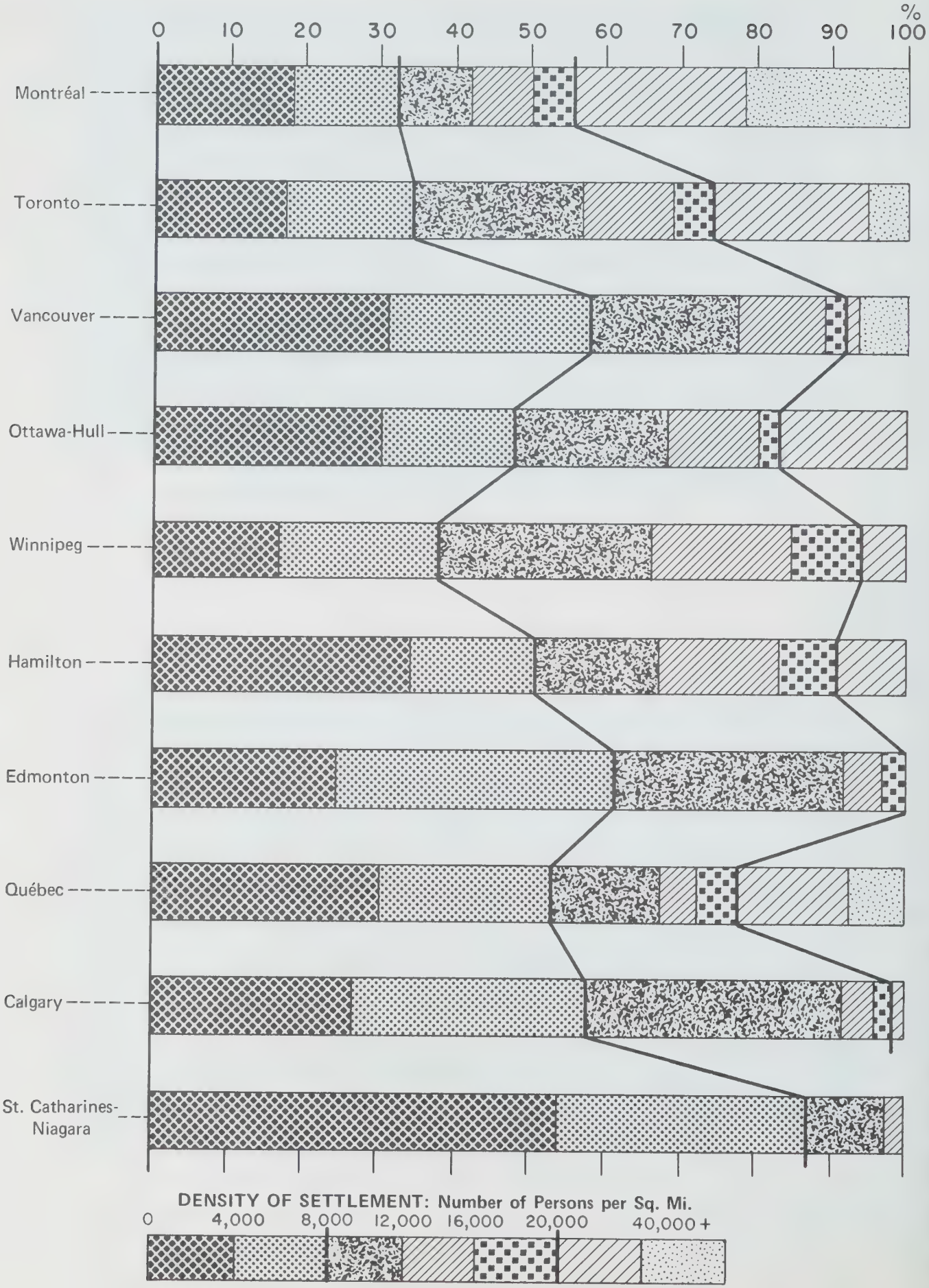


Chart 9.11

LAND USE BY REGION, 1968

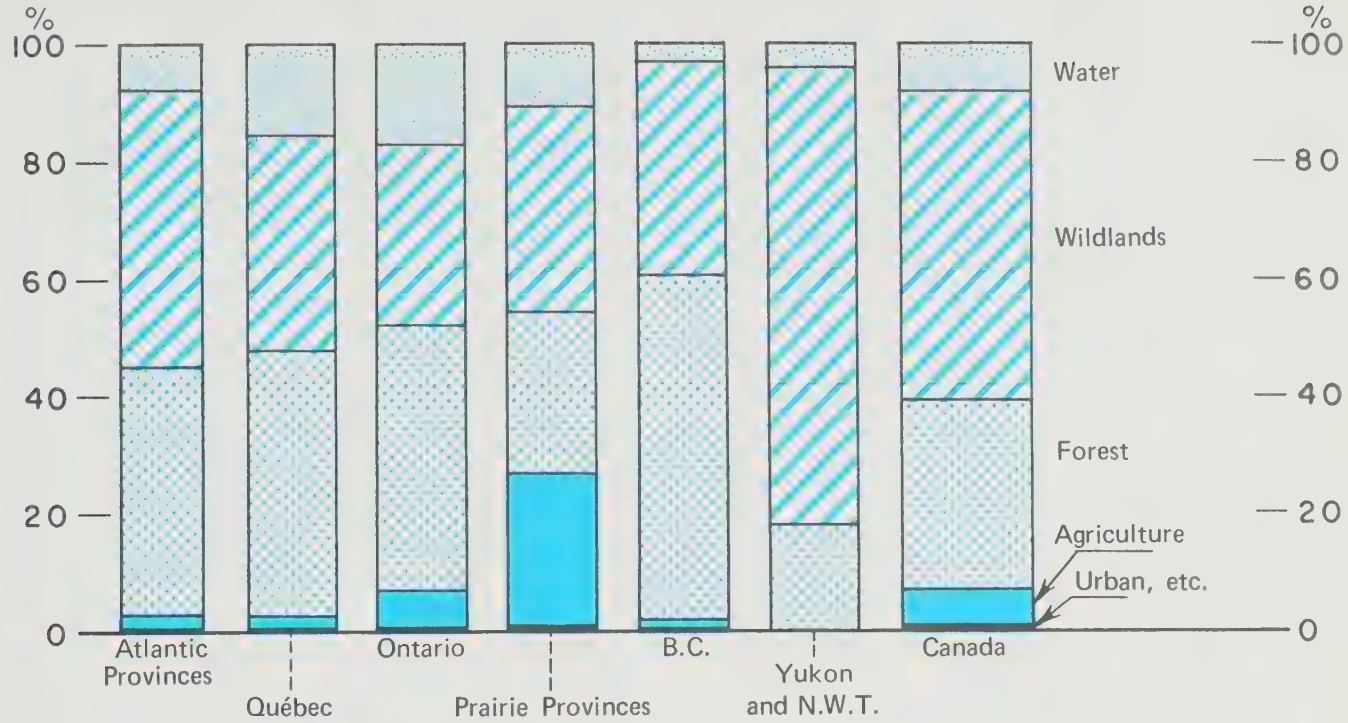
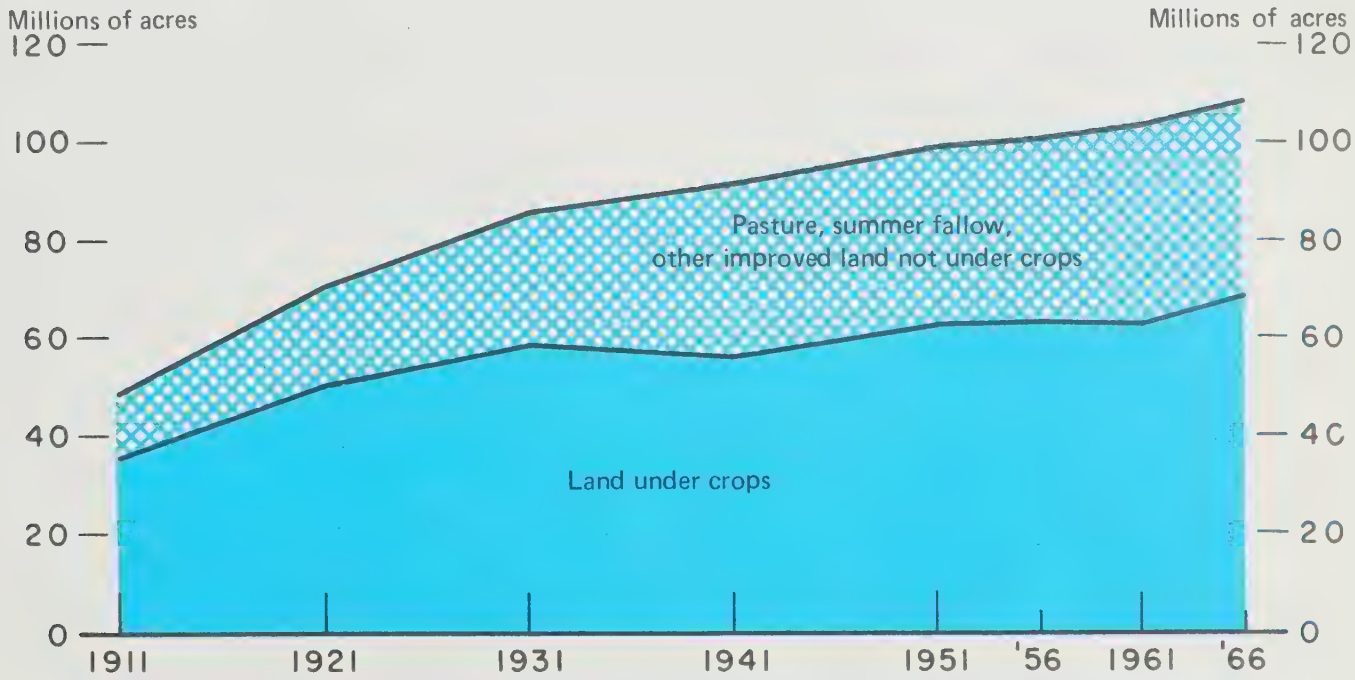


Chart 9.12

AREA OF IMPROVED FARMLAND (1)



1) Total area of all census farms (agricultural holdings of one acre or more with some income from sales of agricultural products).

Housing

10

Besides influencing the individual's physical, social and psychological development, housing may also be regarded as a source of status, as a major personal or family asset, and as an element of family and community life and of the local environment.

Although the adequacy of housing is a major concern, defining adequate housing in a measurable way is very difficult. For example, substandard dwellings might be defined nowadays as those without plumbing. But that is only one kind of housing inadequacy, and an uncommon one. Other attributes such as the safety and sanitation of the dwelling, and the state of maintenance of essential household amenities, can also affect the adequacy of a home.

Another statistic frequently used to indicate the general quality of housing is the density of occupation – the number of persons per room. The census defines a crowded household as having more than one person per room. But this is necessarily a rough-and-ready measure; it does not take account of variations in the age and sex of household members, or the size of rooms, or of regional and local customs and standards.

DATA

Most of the data selected are taken from the annual Central Mortgage and Housing Corporation publication, *Canadian Housing Statistics,*[1] and the Statistics Canada publication, *Household Facilities and Other Characteristics.* In addition, some unpublished CMHC and Statistics Canada data have been used.

Data on households, together with statistics on the total housing supply, are designed to provide the background against which the rest of the chapter is set. While most Canadians live in private households, a small percentage of the population is resident in "collectives", such as military camps and homes for the aged. Collective dwellings are not discussed further in this chapter.

Information is given on trends in the type of living accommodations, showing, for example, the changing mix of housing starts for Canada, urban and other areas, and the provinces. Housing starts are reported here because they are a good indicator of housing trends. They show quite clearly the rising proportion of apartments started and the relative decline of single detached dwelling starts – though it should be remembered that the definition of an apartment building is rather broad. Although a common feature of many of our metropolises is the high-rise apartment building, CMHC and Statistics Canada do not separate high-rises from other apartment buildings in their statistics. However, data are available on apartment building completions by size of buildings (expressed as the number of dwelling units) for census metropolitan areas, from 1970 onwards. Data showing that the federal and provincial governments, under cost-sharing arrangements, are now financing an increasing number of housing projects for low-income groups are also presented.

The statistic commonly adopted to indicate housing availability is the vacancy rate. This information, however, is available on an annual or semi-annual basis only for apartment buildings of six or more units in census metropolitan areas. Comprehensive national information on vacancy rates and rental prices for all types of rental accommodation, along with price and quality of units being offered for sale, would enhance our ability to make judgments on the availability of housing for various groups in society.

Tenure is an important characteristic of the housing stock since both types of tenure (rental and ownership) represent differences in security and potential capital assets, as well as influencing residential mobility. These data show that there has been a slight decline in the proportion of homeownership in the last few years.

Information on the quality of services in dwellings, on crowding, and on the age of dwellings, is related, where possible, to household characteristics.

CONCEPTS AND DEFINITIONS

Household refers to a person or group of persons occupying one dwelling. It usually consists of a family group, with or without lodgers, employees, etc. However, it may consist of two or more families sharing a dwelling, of a group of unrelated persons, or of one person living alone.

Collectives include hotels, large lodging houses, military camps, lumber camps, homes for the aged, religious institutions, etc. In certain instances, there may be private households occupying structurally separate dwellings on the grounds of the institution or camp (e.g. separate family living quarters for staff members). Such households are included in the count of private households.

Dwelling means a set of living quarters which (a) is structurally separate and (b) has a private entrance either from outside the building or from a common hall, lobby, vestibule or stairway inside the building. The entrance must be one that can be used without passing through anyone else's living quarters.

Housing start is the beginning of construction work on a building, usually when the concrete has been poured for the whole of the footing around the structure, or an equivalent stage where a basement will not be part of the structure.

[1] Housing not financed under the National Housing Act is ignored because it makes up only a small part of the market.

Housing completion is the stage at which all the construction work on a dwelling unit has been performed, although in some circumstances a dwelling may be counted as completed where up to 10 per cent of the proposed work remains to be done.

A **single detached dwelling** or **single house** is a building containing only one dwelling unit, which is completely separated on all sides from any other dwelling or structure. A **semi-detached dwelling** is one of two dwellings located side-by-side in a building not adjoining another structure. A **row house** is a dwelling unit in a row of three or more attached dwellings separated by common walls extending from ground to roof. An **apartment** is a dwelling unit in a multi-dwelling structure other than a double house or row house; it includes structures commonly known as triplexes, double duplexes, and quadruplexes.

The definitions of **census metropolitan, major urban**, and **rural areas**, are the same here as in Chapter 1.

The number of rooms in a dwelling is determined by counting only those enclosed areas within a dwelling that are used for, or suitable for, year-round living purposes, including rooms occupied by servants, lodgers or members of lodging families. Kitchens are included in this count. Bathrooms, clothes closets, pantries, halls, and rooms used solely for business purposes, are not included. **Kitchenettes** are counted if the normal kitchen functions are carried out therein and if they contain at least a sink and some cooking facilities such as a range or stove.

Low income cut-off points are as defined in Chapter 7.

The **period of construction** indicates the completion date of the original construction without taking into consideration any minor or major modifications carried out subsequently.

Table 10.1
POPULATION IN PRIVATE HOUSEHOLDS

	1951	1961	1966	1971
		thousands		
Number of persons in private households	13,572	17,612	19,406	21,034
Number of private households	3,409	4,555	5,180	6,041

Table 10.2
DWELLING STARTS IN METROPOLITAN AND MAJOR URBAN AREAS

	Single detached	Semi-detached and duplex	Row	Apartment and other	Total
1956:					
CANADA	90,620	9,441	2,263	24,987	127,311
1961:[1]					
Metropolitan Areas	30,397	8,389	1,154	31,129	
Major Urban Areas	9,045	676	131	2,204	
CANADA	76,430	11,650	1,864	35,633	125,577
1966:[2]					
Metropolitan Areas	36,309	4,947	4,154	44,986	
Major Urban Areas	5,812	752	125	1,916	
CANADA	70,642	7,281	5,000	51,551	134,474
1971:[2]					
Metropolitan Areas	41,851	8,712	12,634	85,240	
Major Urban Areas	8,091	1,394	1,059	7,315	
CANADA	98,056	13,751	15,659	106,187	233,653

1) Data on 1956 Census Area definitions.
2) Data on 1966 Census Area definitions.

Chart 10.3
DWELLING STARTS, BY TYPE OF UNIT

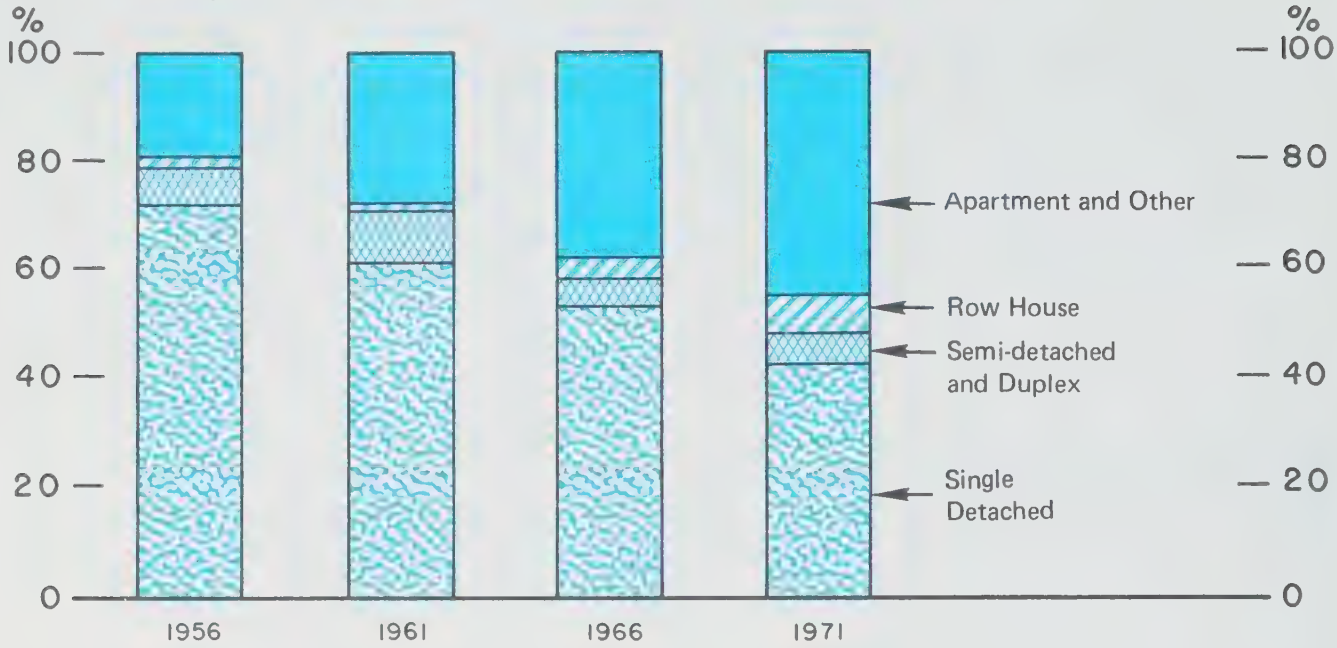


Table 10.4
DWELLING STARTS, BY PROVINCE

	Single detached	Semi-detached	Row	Apartments	Total
1960-62:					
Newfoundland	5,446	—	—	4	5,450
Prince Edward Island	1,165	202	127	65	1,559
Nova Scotia	8,467	246	794	1,410	10,917
New Brunswick	5,426	136	50	553	6,165
Quebec	49,339	17,963	1,284	34,370	102,956
Ontario	73,592	10,147	2,869	48,124	134,732
Manitoba	10,577	822	448	3,652	15,499
Saskatchewan	12,689	462	108	1,458	14,717
Alberta	25,435	1,620	1,090	7,324	35,469
British Columbia	25,908	726	1,137	9,295	37,066
1969-71:					
Newfoundland	7,199	416	596	590	8,801
Prince Edward Island	2,489	186	28	211	2,914
Nova Scotia	10,940	1,044	646	7,398	20,028
New Brunswick	7,362	857	665	2,892	11,776
Quebec	49,403	6,052	5,721	81,137	142,313
Ontario	83,221	16,947	21,647	126,286	248,101
Manitoba	10,102	2,189	2,465	16,738	31,494
Saskatchewan	7,346	616	192	2,599	10,753
Alberta	24,714	2,878	6,781	30,142	64,515
British Columbia	44,433	3,765	4,694	41,009	93,901

Chart 10.5
DWELLING STARTS, BY TYPE OF UNIT AND BY PROVINCE, 1971

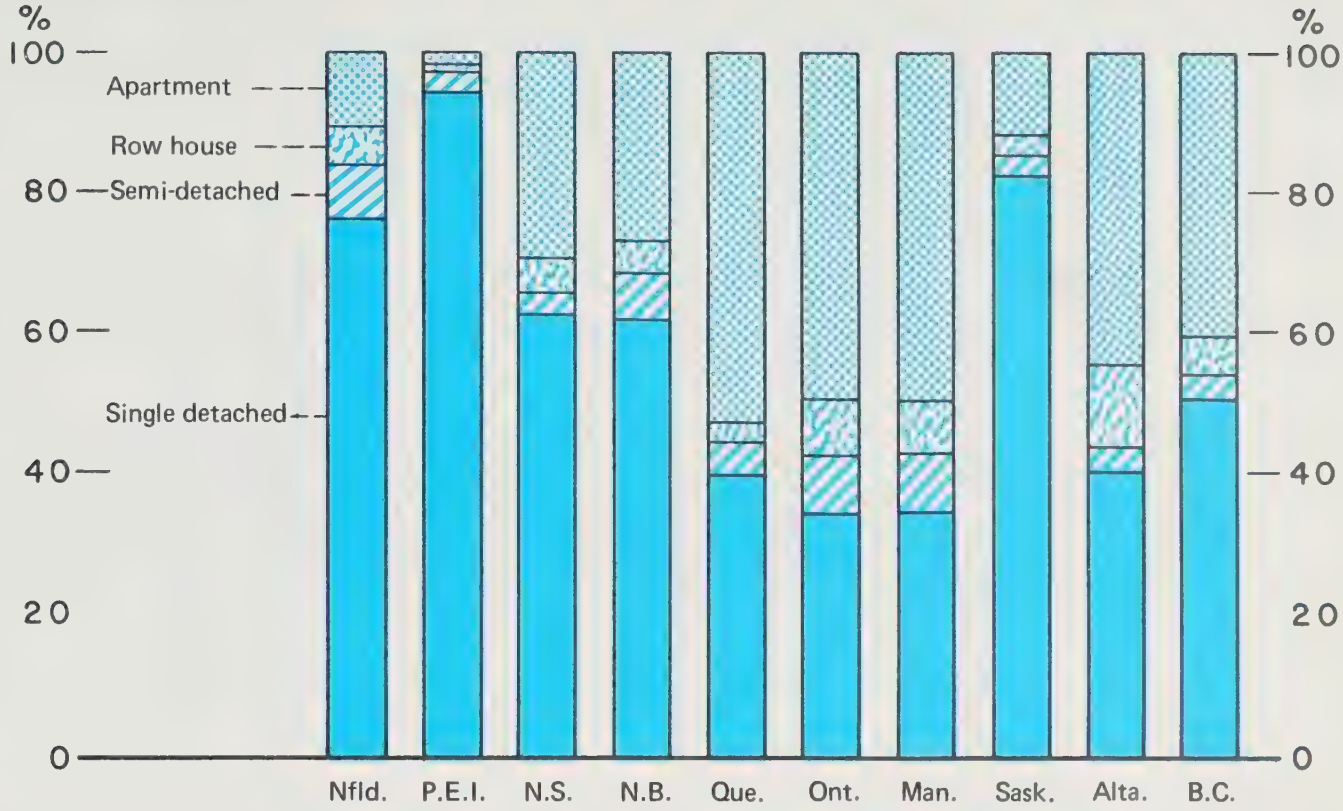


Chart 10.6
APARTMENT BUILDING COMPLETIONS BY SIZE OF BUILDING, FOR SELECTED METROPOLITAN AREAS (TOTAL FOR 1970 & 1971)

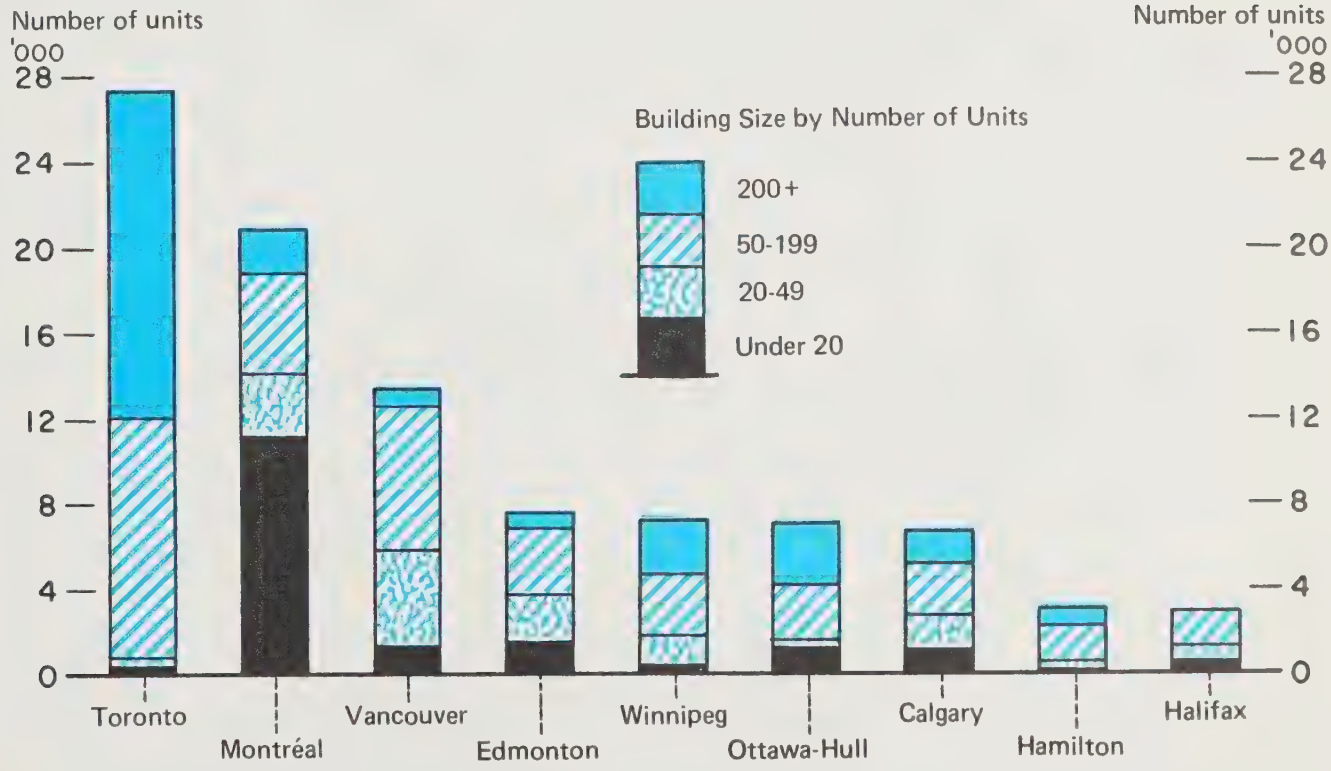


Table 10.7
LOW INCOME UNITS BUILT UNDER THE NATIONAL HOUSING ACT, BY TYPE OF SUBSIDY[1]

	1966	1967	1968	1969	1970	1971	1972
Section 40 (NHA)	8,597	8,901	9,074	8,553	10,561	10,211	16,888
Section 44 (NHA)	1,045	3,688	7,341	14,135	25,105	36,044	50,984
TOTALS	9,642	12,589	16,415	22,688	35,666	46,255	67,872

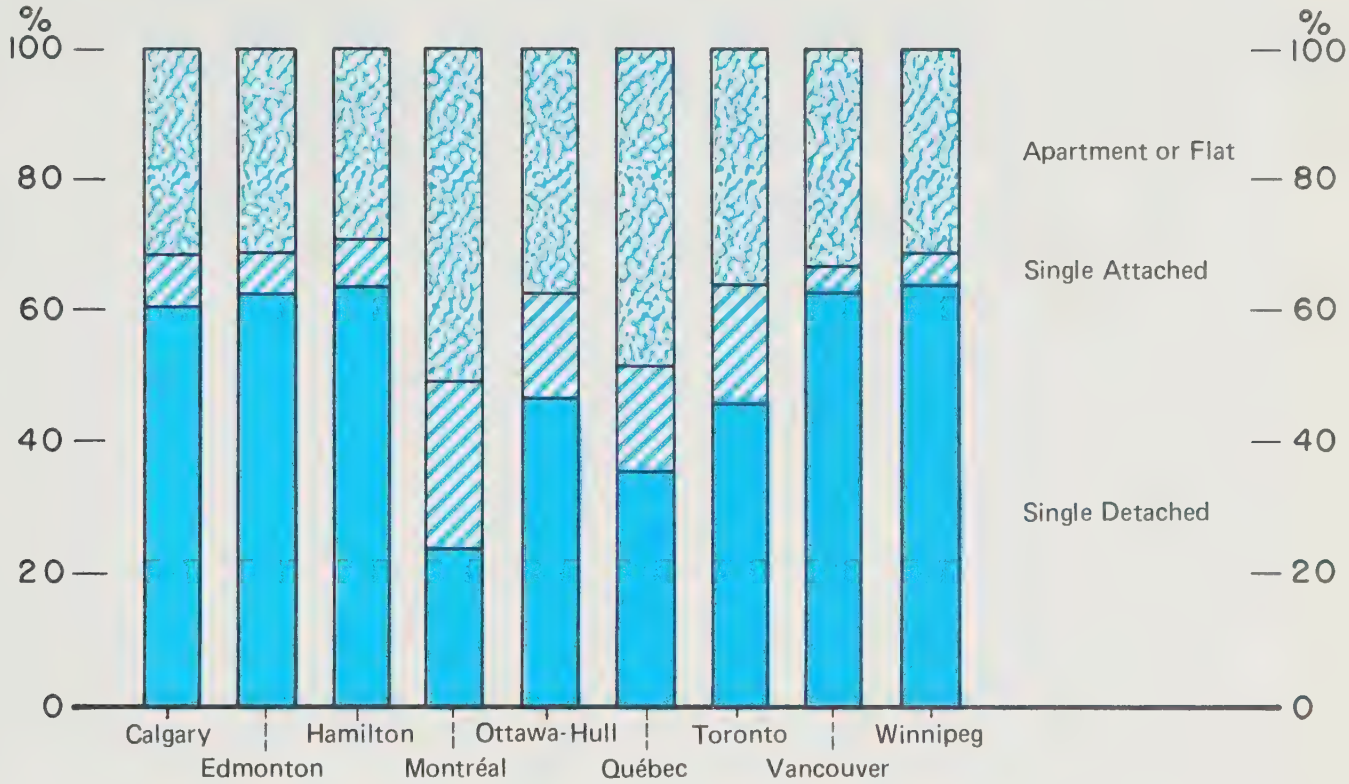
1) Rental subsidies for low income groups under the National Housing Act (NHA) may take two forms. Under Section 40 of the NHA, federal-provincial partnership arrangements for financing rental projects provide for the sharing of operating losses on the basis of 75% by the federal government and 25% by the provincial partner. Arrangements may be made with any province, municipality or public housing agency under Section 44 of the Act for the contribution of up to 50% of the operating loss of providing housing accommodation for individuals and families of low income. Originally this activity related to loans for public housing projects financed under Section 43, and in 1967 included certain projects financed under Section 15.

Table 10.8
NATIONAL HOUSING STOCK, BY TYPE OF DWELLING

	1951	1961	1971
		per cent	
Single detached	66.7	65.4	59.4
Single attached	7.0	8.9	11.3
Apartment or flat	26.0	25.3	28.2
Mobile home	0.3[1]	0.4	1.1
TOTALS	100.0	100.0	100.0

1) Percentage classified as "other"; there was no separate class for mobile home in the 1951 Census.

Chart 10.9
TYPE OF DWELLING IN SELECTED CENSUS METROPOLITAN AREAS(1), 1971



(1) Mobile home population is less than 1% in these cities.

Table 10.10
APARTMENT VACANCY RATES,[1] FOR CENSUS METROPOLITAN AREAS[2]

	1965	1966	1967	1968	1969	1970	1971
	percentage of total apartment units						
Calgary	8.0	5.8	1.6	1.3	1.7	5.8	10.7
Edmonton	6.5	2.8	2.8	2.8	3.7	5.7	6.3
Halifax	5.4	3.8	2.8	0.5	0.5	2.6	4.1
Hamilton	1.4	1.5	1.4	1.9	1.3	2.9	2.2
Montreal	..	4.5	1.2	5.0	7.6	8.2	7.2
Ottawa-Hull	9.1	7.6	2.1	1.5	1.7	2.2	2.1
Quebec	..	4.8	2.2	2.2	2.8	3.8	4.8
Toronto	1.6	1.0	1.2	1.5	2.7	2.8	3.0
Vancouver	4.0	1.5	1.0	1.3	1.2	2.7	4.1
Windsor	..	..	1.1	1.6	0.6	0.9	2.1
Winnipeg	4.9	4.1	1.7	1.6	1.6	2.6	3.5

1) Vacancy rates (in privately initiated apartment structures of six units and over only) are the result of a sample survey carried out each June, in larger metropolitan areas. Commencing in 1970, the survey was also carried out in December in selected metropolitan areas.
2) Based on 1966 Census Area definitions.

Table 10.11
OCCUPIED DWELLINGS BY TENURE, BY REGION[1]

	Atlantic Provinces	Quebec	Ontario	Prairie Provinces	British Columbia	Canada
			thousands of dwellings			
Owned:						
1956	325	526	1,005	549	280	2,685
1966	345	678	1,328	661	381	3,393
1971	349	784	1,453	669	422	3,678
Rented, cash:						
1956	71	500	334	173	98	1,176
1966	95	691	519	217	145	1,667
1971	110	726	684	286	208	2,014
Rented, other:[2]						
1956	4	19	31	45	10	113
1966	–	15	22	17	7	66
1971	–	26	26	16	10	87

1) By definition the number of households is equal to the number of occupied dwellings. See Concepts and Definitions for further information.
These figures do not always add to totals because of the problem of small sample size. For more detailed information see Section VI of the "Household Facilities and Equipment Survey, May 1971". Catalogue 64-202.
2) Includes dwellings: (a) occupied rent free or under share cropping agreements; (b) for which rent was paid in kind or by services; (c) for which rent also includes rent for business premises.

Chart 10.12
OCCUPIED DWELLINGS BY TENURE

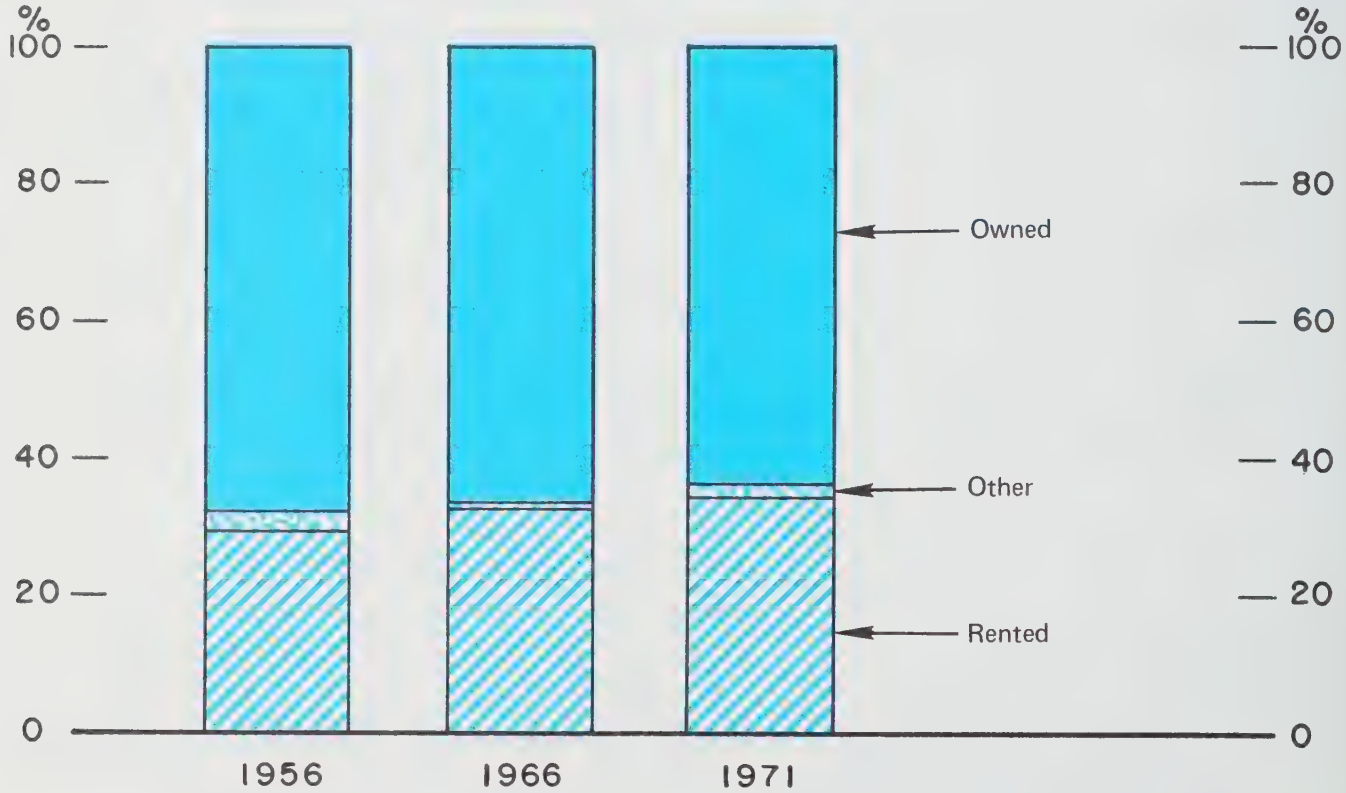


Table 10.13
OCCUPIED DWELLINGS LACKING SELECTED AMENITIES, BY REGION

	Canada	Atlantic Provinces	Quebec	Ontario	Prairie Provinces	British Columbia
	percentage of all occupied dwellings					
Piped running water:[1]						
1956	18.2	34.2	5.0	11.5	46.3	5.7
1966	5.5	14.6	1.0	2.4	16.2	2.3
1971	2.7	9.6	0.3	1.1	8.0	1.3
Exclusive use of bath or shower:						
1956	30.5	56.4	26.9	18.9	51.8	12.4
1966	11.5	31.7	10.5	5.4	20.0	4.3
1971	7.4	27.1	5.8	3.6	12.3	3.3
Exclusive use of flush toilet:						
1956	26.9	50.0	11.1	18.2	58.0	14.2
1966	7.5	25.0	1.8	4.6	21.6	3.9
1971	4.6	17.5	0.6	2.4	12.0	2.2

1) Means piped running water inside the dwelling.

Table 10.14
HOUSEHOLDS LACKING CERTAIN AMENITIES, BY INCOME LEVEL, 1968[1]

	Total	PROPORTION WITHOUT		
		Running water	Bath facilities	Flush toilets
	thousands	per cent		
Unattached individuals maintaining independent household:				
Below income cut-off point[2]	301	12.0	22.5	15.2
Above income cut-off point[2]	463	5.3	8.9	6.2
Families not sharing accommodation:				
Below income cut-off point[2]	793	11.3	25.3	16.0
Above income cut-off point[2]	3,535	1.8	4.6	2.8

1) Data limited to single-unit households.
2) See Concepts and Definitions, Chapter 7.

Table 10.15
CROWDING

	OWNED		RENTED[1]	
	1966	1971	1966	1971
Percentage of households with:				
Less than one-half person per room	27.6	30.4	20.8	27.7
One-half to one person per room	60.0	60.3	65.1	63.5
More than one person per room	12.4	9.3	14.0	8.8
TOTALS	100.0	100.0	100.0	100.0
'000	3,276	3,678	1,660	2,102

1) Includes dwellings: (a) occupied rent free or under share cropping agreements; (b) for which rent was paid in kind or by services; (c) for which rent also includes rent for business premises.

Table 10.16
CROWDING IN FAMILIES WITH CHILDREN LIVING AT HOME, BY FAMILY INCOME, 1968

1967 income groups	Families with children living at home[1]	Percentage with more than one person per room
	thousands	
Under $4,000	333	26.3
$ 4,000-$ 9,999	1,590	21.8
10,000- 14,999	421	17.8
15,000 and over	142	16.3
TOTALS	2,486	21.4

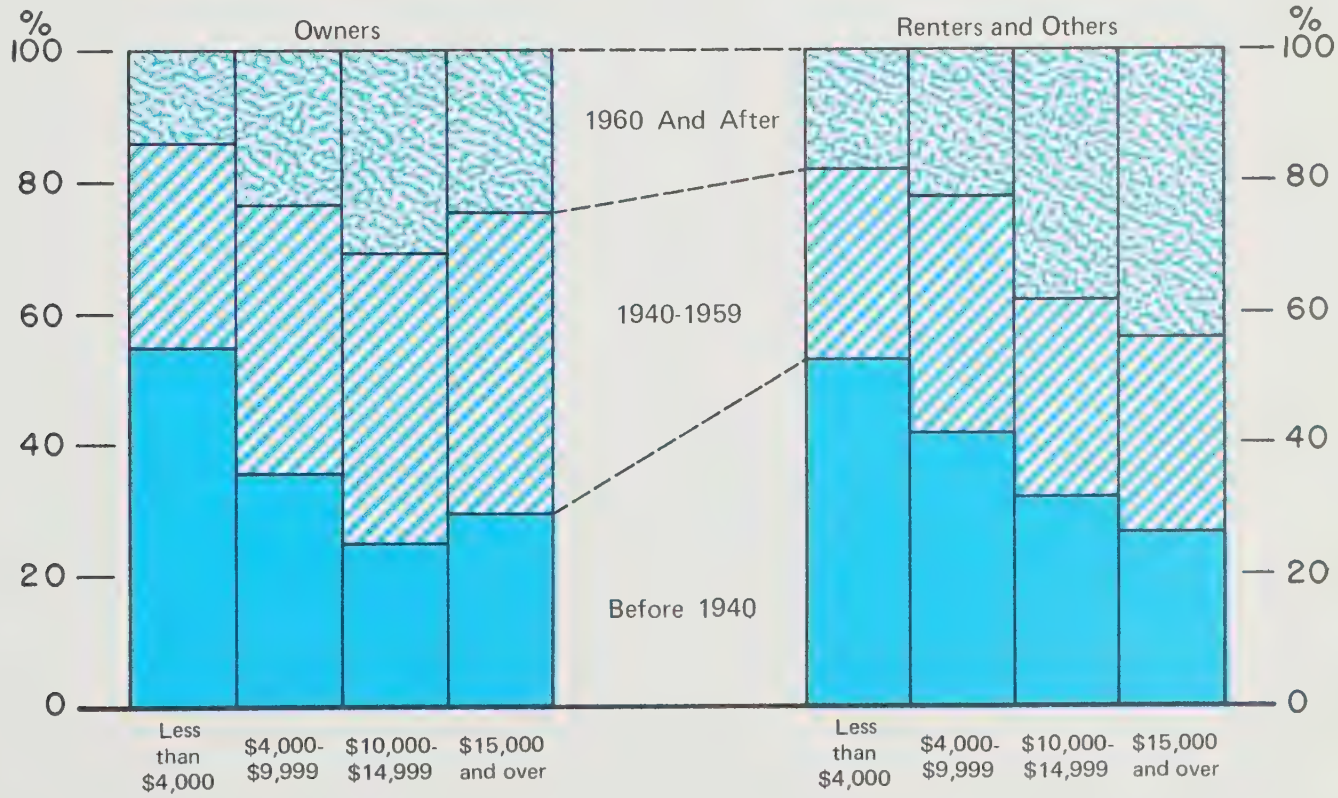
1) One-family households, made up of married couples with unmarried children under sixteen years of age living at home.

Table 10.17
SELECTED CHARACTERISTICS OF HOUSEHOLDS ABOVE AND BELOW INCOME CUT-OFF POINTS, 1968[1]

	Below income cut-off	Above income cut-off
Estimated numbers	793,000	3,535,000
Percentage distribution by household size:		
2-3 persons	49.8	45.2
4-5 "	28.8	36.5
6 or more persons	21.4	18.3
Average family size	3.99	4.03
Percentage distribution by number of rooms:		
1-4 persons	32.3	23.6
5-6 "	43.8	51.9
7 or more persons	23.9	24.5
Average number of rooms	5.39	5.59
Average number of persons per room	0.74	0.72
Percentage of households with one or more persons per room	32.7	26.1

1) For a definition of the term "income cut-off point", see Concepts and Definitions in Chapter 7.

Chart 10.18
AGE OF DWELLING BY INCOME OF HOUSEHOLD, 1968



Bilingualism

11

Language rights of English and French-speaking groups have been a lively issue in Canadian history since the time of the Treaty of Utrecht in 1713 when Acadia became a British colony. The problem was enlarged in 1763 when the whole of Canada became British. Attempts at solutions were numerous, but it was not until 1848 that the French language gained equal status with that of English in the proceedings of the legislative council and assembly. The British North America Act of 1867 made French an official language equal to English for all federal and Quebec statutes and in all federal and Quebec courts.

However, these linguistic guarantees in the British North America Act are fairly limited. They do not cover language use in administrative law or in certain provincial courts (other than in Quebec), or in the actual conduct of government and administration.

Increasing concern with language rights in the post-war period resulted in the creation, in 1963, of the Royal Commission on Bilingualism and Biculturalism. The Commission's mandate was to "recommend steps to develop the Canadian Confederation on the basis of an equal partnership between the two founding races, taking into account the contributions made by other ethnic groups".[1] As a result of the Commission's work, the "Official Languages Act" was passed in 1971. It extended the recognition of French as one of Canada's official languages and created the Office of the Commissioner of Official Languages.

The basic language concern today is that all Canadians should be able to use the official language of their choice in all aspects of their life: to be educated at all levels, to work and progress in their careers, to benefit from cultural entertainment and mass media, to participate in associations or religious groups, and to communicate easily with government agencies and political institutions.

Bilingualism does not imply that all Canadians must speak both English and French; it endeavours to ensure equality of opportunity to use either language. It also encourages learning both languages and provides aids for that purpose. At the same time, it is realized that an effective bilingual policy requires a sufficient number of the minority language population in any given area.[2]

Significant developments in law with respect to linguistic policies following the B & B recommendations have also been paralleled in the fields of education and employment. Extensive efforts have been made by the Department of the Secretary of State to promote not only the teaching of French as a second language, but also the use of French as a language of instruction. In the employment field, language training programs have been developed in the federal Public Service to teach the other official language to unilingual employees in order that Canadians can communicate with their government in the language of their choice.

DATA

The data included in this chapter deal with the official linguistic characteristics of the Canadian population. They indicate the percentage of people who are unilingual French, unilingual English, and bilingual. However, it should be borne in mind that data on the ability to speak both languages are ambiguous because they do not take into account different levels of bilingual skill and, in most instances, leave the assessment of this ability to each individual.

Canada's bilingual character implies that its residents should be taught in the official language of their choice wherever possible. Enrolments in second-official-language courses and schools where the second language is the language of instruction give some indication of the degree with which this is taking place.

Work takes a considerable portion of an individual's life and ideally, in a bilingual setting, he should be able to work in the official language of his choice, for his own sense of well-being as well as from the point of view of efficiency. Data on language use on the job, which are unfortunately available only for the province of Quebec, are displayed here.

Some indication of the availability of mass media information and entertainment in each of the official languages is also given, as are the language characteristics of the staff in the federal Public Service as well as the number of employees taking language training.

There are a number of other areas that one would like to explore were the data readily available. For instance, little is known about the results of learning a second language at different ages, through different means or in different surroundings.[3] Because concern has also been expressed that a language can become so dangerously impoverished as to be unused for a large segment of daily activities, such as in the field of work and technology[4], information on use by occupations, industries and income might give further indication of the state of bilingualism. The number of government language training graduates who actually use their new skills might also serve as an indicator of the success of the federal government's bilingual policy in the Public Service.

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[1] *Report of the Royal Commission on Bilingualism and Biculturalism,* Book 1, General Introduction, Appendix I, p. 173, (Ottawa: Queen's Printer, 1967).

[2] The Royal Commission on Bilingualism and Biculturalism recommended that a minimum of 10 per cent of the population of a given area be considered adequate for viable bilingual districts.

[3] Some research has been done in this area by Wallace Lambert and associates.
Attitudes and Motivations in Second Language Learning, W. Lambert and R. Gardner, (Rowley, Maine: Newberry House, 1972).
Bilingual Education of Children, the St. Lambert Experiment W. Lambert and G.R. Tucker, (Rowley, Maine: Newberry House, 1972).

[4] Jacques Brazeau, "Language Differences and Occupational Experience", *Canadian Journal of Economics and Political Science,* XXIX (1958), p. 536.

Table 11.1
POPULATION BY MOTHER TONGUE, 1971

	LINGUISTIC GROUP		PROVINCIAL POPULATION			
	English	French	English	French	Other	Total
			per cent			
CANADA	100.0	100.0	60.2	26.9	12.9	100.0
Newfoundland	4.0	0.1	98.5	0.7	0.8	100.0
Prince Edward Island	0.8	0.1	92.4	6.6	1.0	100.0
Nova Scotia	5.7	0.7	93.0	5.0	2.0	100.0
New Brunswick	3.2	3.7	64.7	34.0	1.3	100.0
Quebec	6.1	84.1	13.1	80.7	6.2	100.0
Ontario	46.0	8.3	77.5	6.3	16.2	100.0
Manitoba	5.1	1.0	67.1	6.1	26.8	100.0
Saskatchewan	5.3	0.5	74.1	3.4	22.5	100.0
Alberta	9.7	0.8	77.6	2.9	19.5	100.0
British Columbia	13.9	0.7	82.7	1.7	15.6	100.0
Yukon	0.1	–	83.4	2.4	14.2	100.0
Northwest Territories	0.1	–	46.9	3.3	49.8	100.0

Chart 11.2
POPULATION BY MOTHER TONGUE

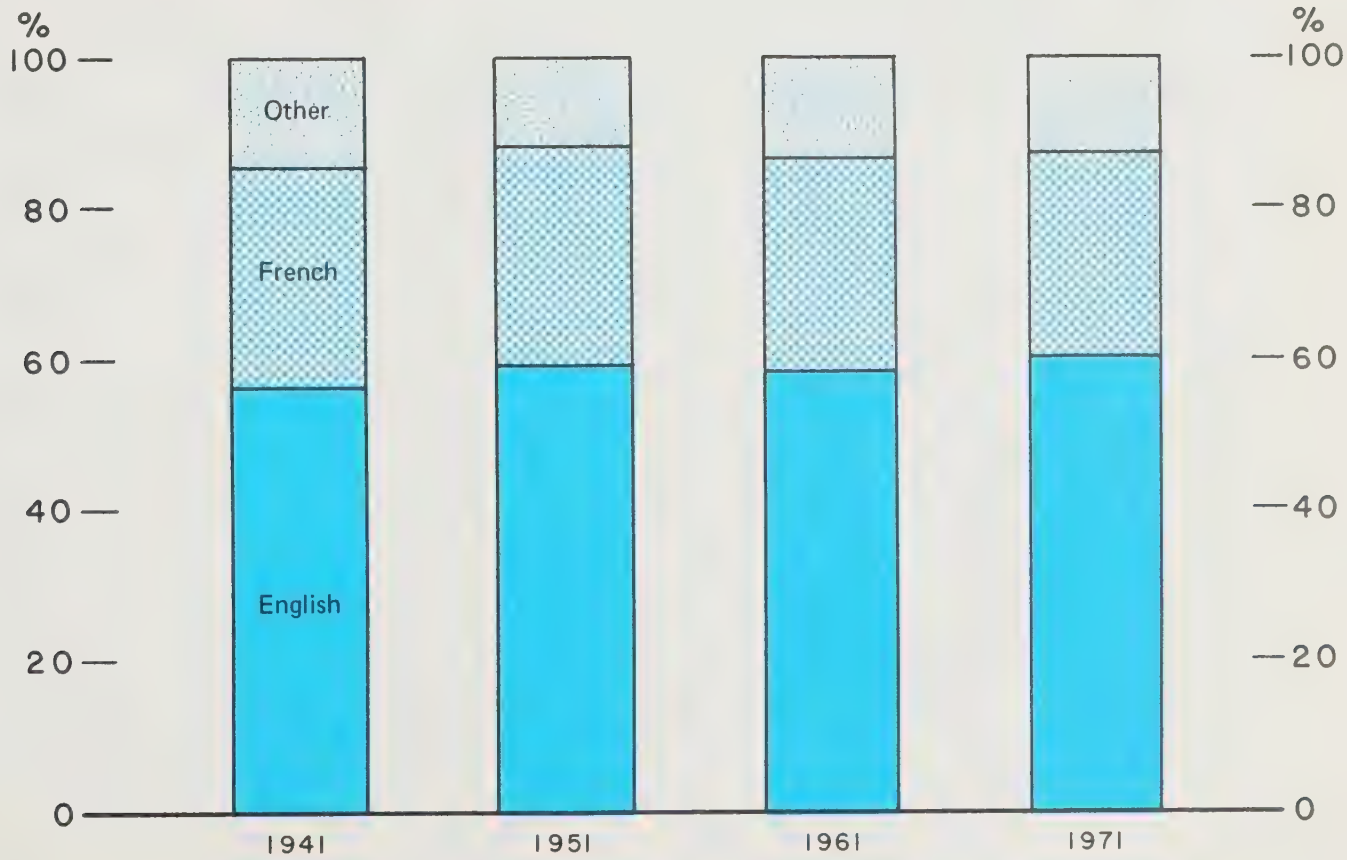


Table 11.3
LANGUAGE MOST OFTEN SPOKEN AT HOME, 1971

	English	French	Other	Total
		per cent		
CANADA	67.1	18.0	14.9	100.0
Newfoundland	99.1	0.4	0.5	100.0
Prince Edward Island	95.7	3.9	0.4	100.0
Nova Scotia	95.5	3.5	1.0	100.0
New Brunswick	67.9	31.4	0.7	100.0
Quebec	14.7	80.8	4.5	100.0
Ontario	85.1	4.6	10.3	100.0
Manitoba	82.6	4.0	13.4	100.0
Saskatchewan	89.9	1.7	8.4	100.0
Alberta	90.8	1.4	7.8	100.0
British Columbia	92.8	0.5	6.7	100.0
Yukon	95.0	0.7	4.3	100.0
Northwest Territories	58.1	1.7	40.2	100.0

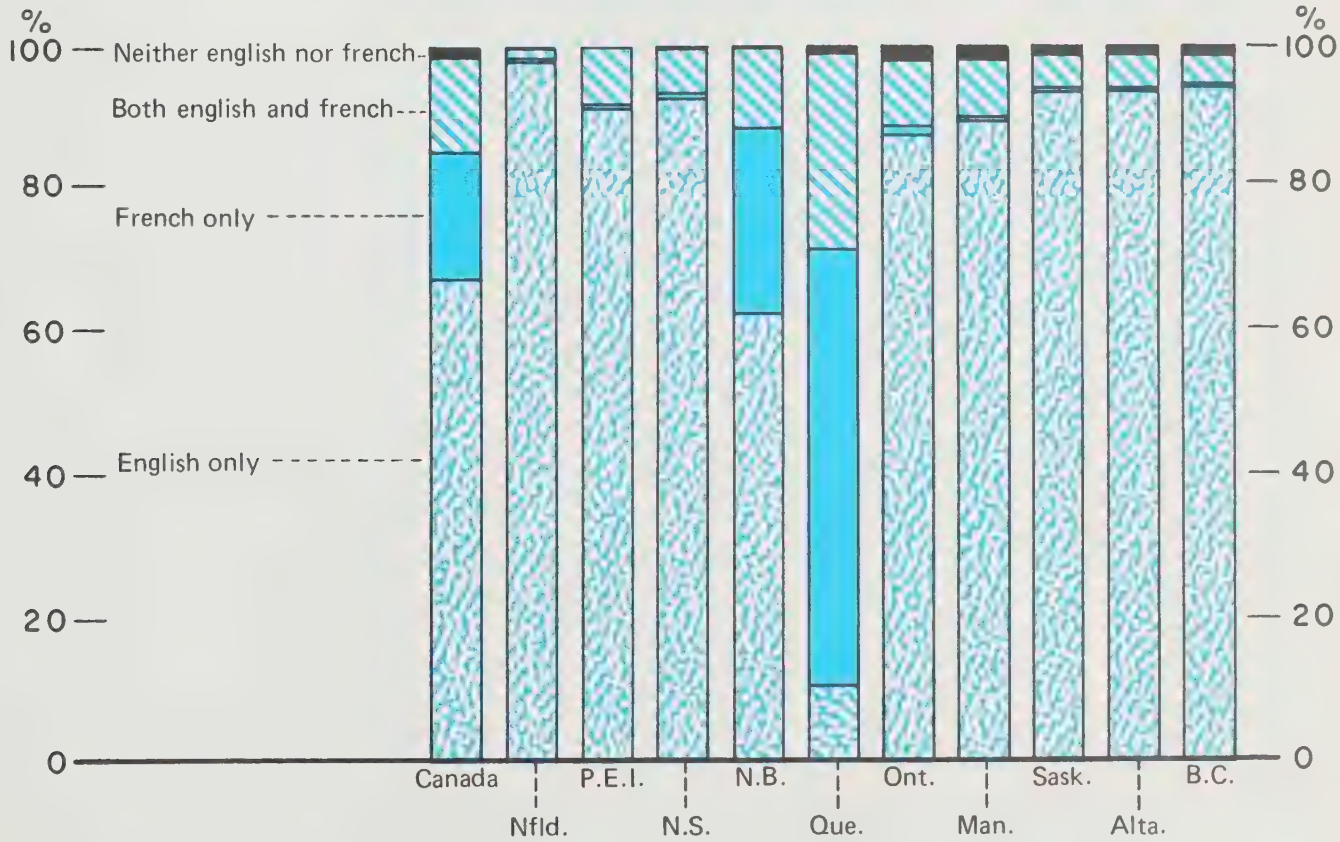
Table 11.4
LANGUAGE RETENTION BY AGE, 1971

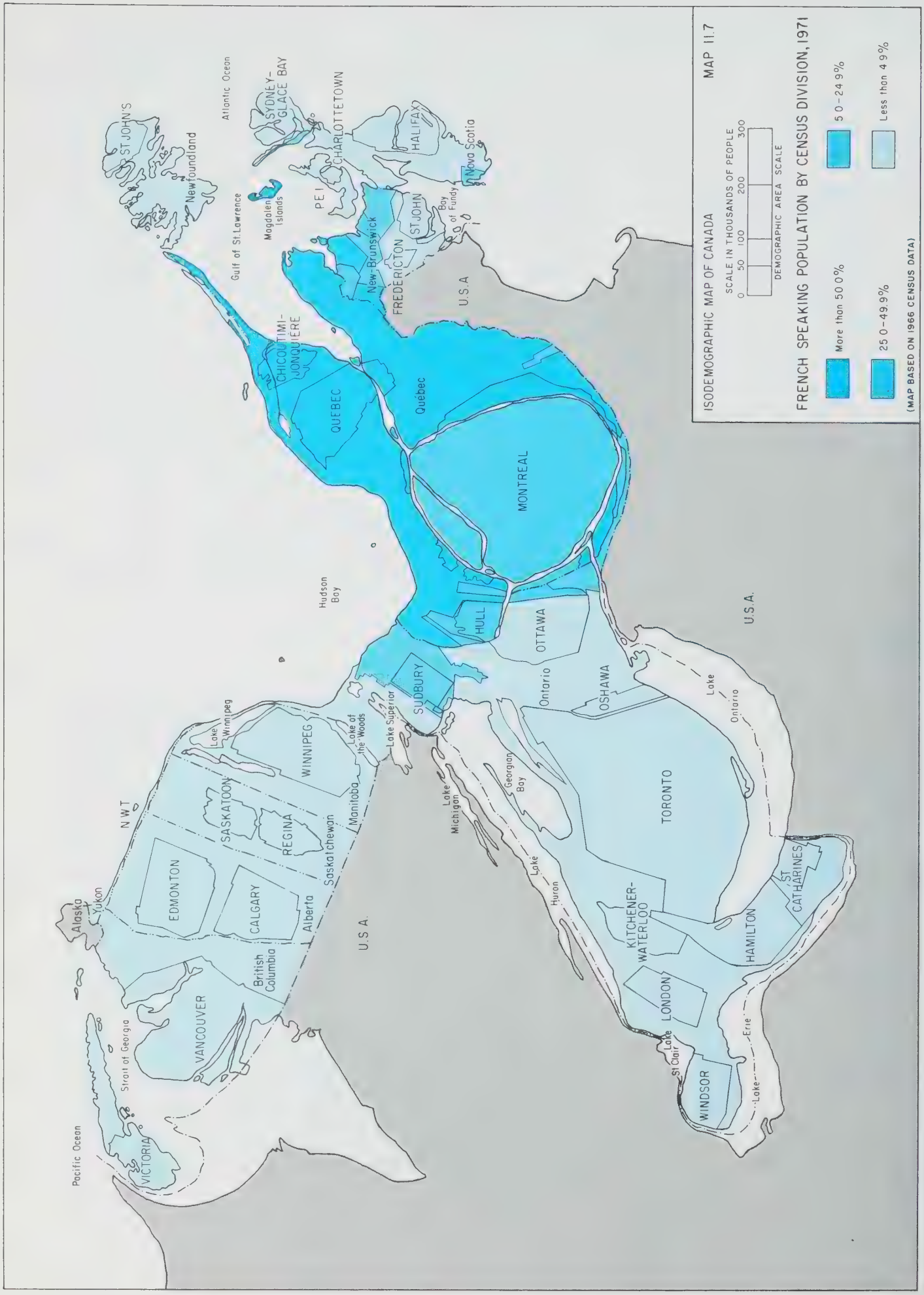
Age and mother tongue	LANGUAGE IN HOME			
	English	French	Other	Total
		per cent		
0-4 years:				
English	98.4	0.4	1.2	100.0
French	2.5	97.3	0.2	100.0
5-9 years:				
English	98.7	0.4	0.9	100.0
French	3.1	96.8	0.1	100.0
10-14 years:				
English	99.0	0.4	0.7	100.0
French	3.3	96.6	0.1	100.0
15-19 years:				
English	99.0	0.4	0.6	100.0
French	4.1	95.8	0.1	100.0
20-24 years:				
English	98.8	0.6	0.5	100.0
French	6.6	93.2	0.2	100.0
25-44 years:				
English	98.7	0.7	0.6	100.0
French	8.3	91.5	0.2	100.0
45 + years:				
English	98.9	0.6	0.5	100.0
French	7.8	92.0	0.2	100.0

Table 11.5
POPULATION BY OFFICIAL LANGUAGES

	ENGLISH ONLY		FRENCH ONLY		BOTH ENGLISH AND FRENCH		NEITHER ENGLISH NOR FRENCH	
	1961	1971	1961	1971	1961	1971	1961	1971
					per cent			
Newfoundland	98.5	98.0	0.1	0.1	1.2	1.8	0.2	0.1
Prince Edward Island	91.1	91.2	1.2	0.6	7.6	8.2	0.2	--
Nova Scotia	92.9	92.6	0.8	0.5	6.1	6.7	0.2	0.2
New Brunswick	62.0	62.5	8.7	15.9	19.0	21.5	0.2	0.1
Quebec	11.6	10.5	1.9	60.9	25.5	27.6	1.1	1.0
Ontario	89.0	87.3	1.5	1.2	7.9	9.3	1.6	2.2
Manitoba	89.6	89.2	0.9	0.5	7.4	8.2	2.1	2.1
Saskatchewan	93.6	93.6	0.4	0.2	4.5	5.0	1.5	1.2
Alberta	94.1	93.7	0.4	0.2	4.3	5.0	1.2	1.1
British Columbia	95.3	94.1	0.2	0.1	3.5	4.6	1.0	1.2
Yukon	93.5	93.2	0.3	0.1	5.6	6.6	0.6	0.1
Northwest Territories	58.9	73.3	0.5	0.3	7.0	6.1	33.6	20.3
CANADA	67.4	67.1	19.1	18.0	12.2	13.4	1.3	1.5

Chart 11.6
POPULATION BY OFFICIAL LANGUAGES, 1971




ISODEMOGRAPHIC MAP OF CANADA
MAP 11.7
SCALE IN THOUSANDS OF PEOPLE
0 50 100 200 300
DEMOGRAPHIC AREA SCALE
FRENCH SPEAKING POPULATION BY CENSUS DIVISION, 1971
More than 50.0%
25.0-49.9%
5.0-24.9%
Less than 4.9%
(MAP BASED ON 1966 CENSUS DATA)
Atlantic Ocean
Pacific Ocean
Hudson Bay
Gulf of St. Lawrence
Bay of Fundy
Strait of Georgia
Lake Winnipeg
Lake of the Woods
Lake Superior
Lake Michigan
Georgian Bay
Lake Huron
Lake Ontario
Lake Erie
Lake St. Clair
U.S.A.
U.S.A.
U.S.A.
Alaska
Yukon
N.W.T.
Newfoundland
Nova Scotia
Magdalen Islands
PEI
ST. JOHN'S
SYDNEY-GLACE BAY
CHARLOTTETOWN
HALIFAX
ST. JOHN
FREDERICTON
New Brunswick
CHICOUTIMI-JONQUIERE
QUEBEC
Québec
MONTREAL
HULL
OTTAWA
SUDBURY
OSHAWA
TORONTO
WINNIPEG
Manitoba
Saskatchewan
Alberta
British Columbia
SASKATOON
REGINA
EDMONTON
CALGARY
VANCOUVER
VICTORIA
KITCHENER-WATERLOO
LONDON
HAMILTON
ST. CATHARINES
WINDSOR

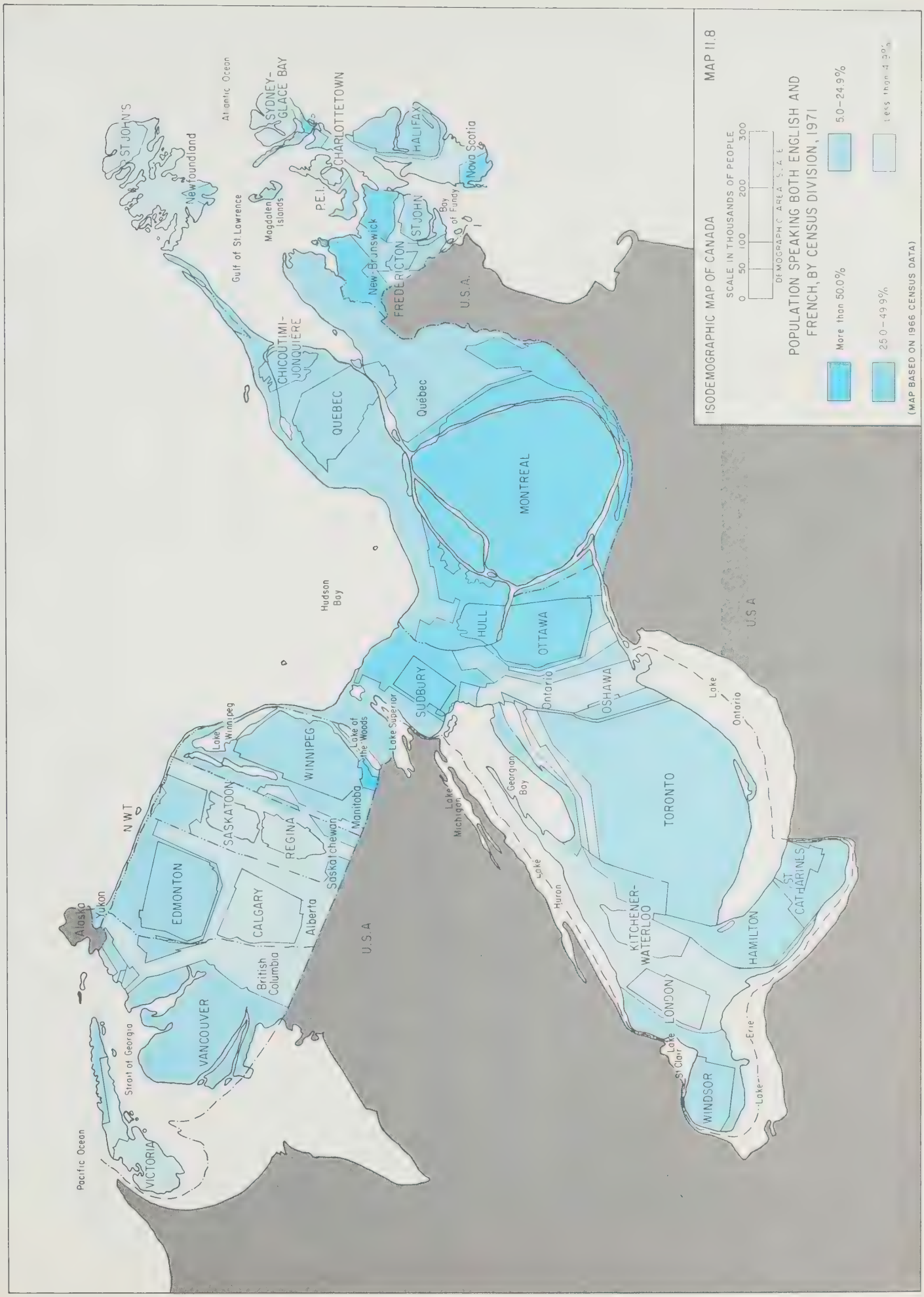

ISODEMOGRAPHIC MAP OF CANADA
MAP 11.8
SCALE IN THOUSANDS OF PEOPLE
0 50 100 200 300
DEMOGRAPHIC AREA SIZE
POPULATION SPEAKING BOTH ENGLISH AND FRENCH, BY CENSUS DIVISION, 1971
More than 50.0%
25.0–49.9%
5.0–24.9%
less than 4.9%
(MAP BASED ON 1966 CENSUS DATA)
ST JOHN'S
Newfoundland
Atlantic Ocean
SYDNEY-GLACE BAY
CHARLOTTETOWN
P.E.I.
HALIFAX
Nova Scotia
Gulf of St. Lawrence
Magdalen Islands
New Brunswick
FREDERICTON
ST JOHN
Bay of Fundy
U.S.A.
CHICOUTIMI-JONQUIÈRE
QUEBEC
Québec
MONTREAL
Hudson Bay
HULL
OTTAWA
SUDBURY
Lake of the Woods
Lake Superior
Lake Winnipeg
WINNIPEG
Manitoba
Saskatchewan
REGINA
SASKATOON
NWT
Alaska
Yukon
EDMONTON
CALGARY
Alberta
British Columbia
VANCOUVER
Strait of Georgia
VICTORIA
Pacific Ocean
Lake Michigan
Georgian Bay
Lake Huron
Ontario
OSHAWA
Lake Ontario
TORONTO
KITCHENER-WATERLOO
HAMILTON
ST CATHARINES
LONDON
Lake St Clair
WINDSOR
Lake Erie

Table 11.9
OFFICIAL LANGUAGE OF SPECIFIED ETHNIC GROUPS

	CONVERSE IN NEITHER ENGLISH NOR FRENCH		CONVERSE IN ENGLISH ONLY		CONVERSE IN FRENCH ONLY		CONVERSE IN BOTH ENGLISH AND FRENCH		TOTAL
	1961	1971	1961	1971	1961	1971	1961	1971	
					per cent				
British	0.1	–	95.5	94.1	0.4	0.6	4.0	5.3	100.0
French	0.2	–	8.6	8.2	61.2	60.1	30.1	31.7	100.0
German	1.3	11.2	95.7	94.0	0.5	0.8	2.6	4.0	100.0
Italian	17.4	16.6	65.2	63.3	6.8	6.0	10.6	14.1	100.0
Jewish	1.3	0.9	79.9	74.3	0.5	1.4	18.4	23.4	100.0
Netherlands	1.6	0.7	95.3	94.6	0.2	0.3	2.9	4.4	100.0
Polish	2.5	2.6	91.3	89.6	0.7	0.7	5.5	7.1	100.0
Russian	2.7	3.8	90.3	89.3	0.5	0.6	6.5	6.3	100.0
Scandinavian	0.2	0.2	97.4	96.6	0.3	0.3	2.1	2.9	100.0
Ukrainian	2.5	2.0	94.6	93.6	0.2	0.2	2.6	4.2	100.0
Other European	4.9	9.2	85.4	79.8	2.0	2.2	7.7	8.8	100.0
Asiatic	11.2	12.0	80.9	78.3	1.3	1.6	6.6	8.1	100.0
TOTALS	1.3	1.5	67.4	67.1	19.1	18.0	12.2	13.4	100.0

Chart 11.10
OFFICIAL LANGUAGE OF SPECIFIED ETHNIC GROUPS, 1971

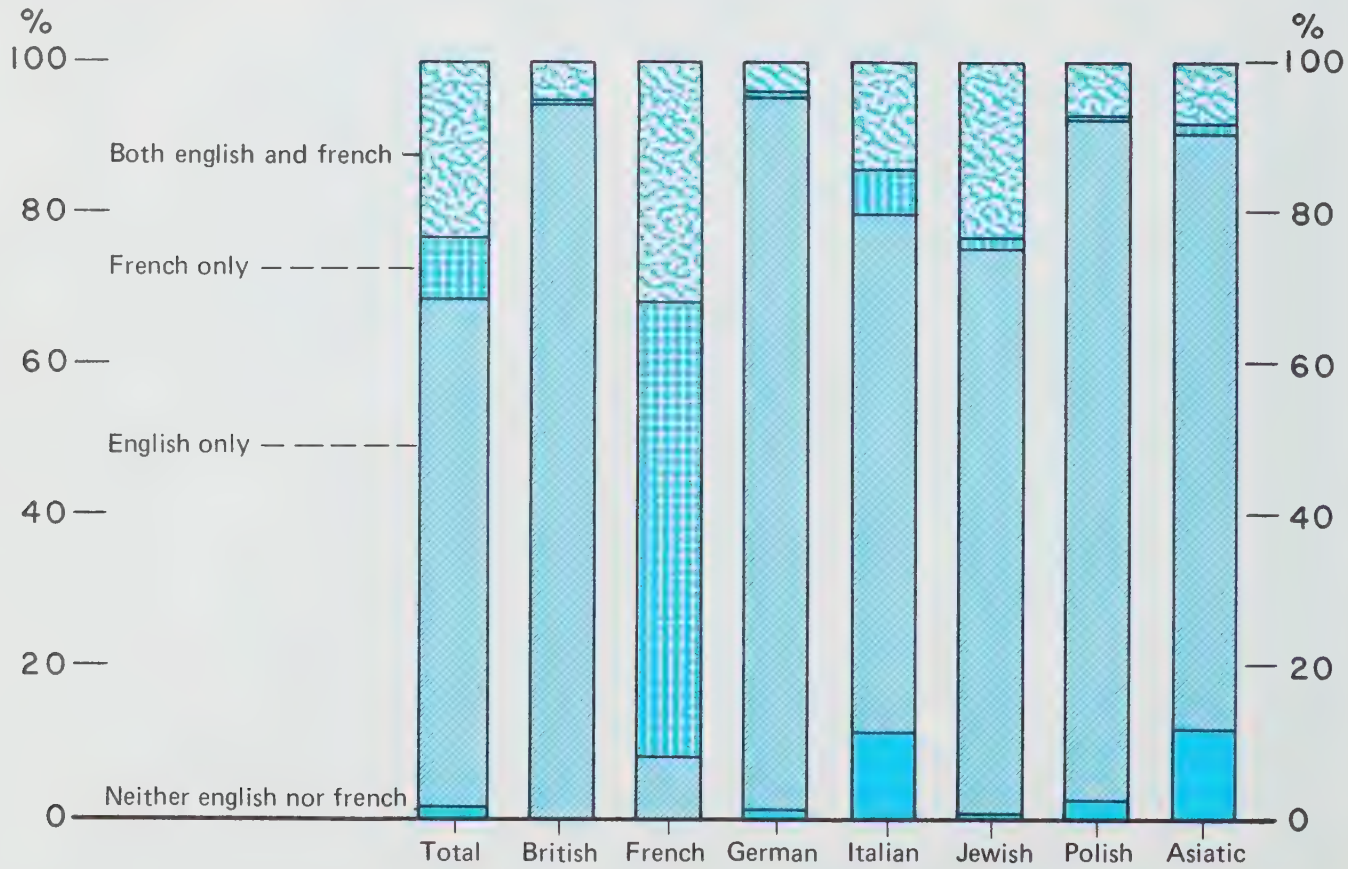


Table 11.11
STUDENTS ENROLLED IN MINORITY LANGUAGE COURSES AS A PERCENTAGE OF ENROLMENT IN MAJORITY LANGUAGE SCHOOLS[1]

	QUEBEC		ALL OTHER PROVINCES	
	Elementary	Secondary	Elementary	Secondary
1970-71	35.8	99.9	29.2	55.7
1971-72	35.5	100.0	30.8	53.2
1972-73	33.4	100.0	33.3	47.0

1) Minority language is defined as English in Quebec and French in all other provinces. Elementary and secondary classifications are as follows: Newfoundland, Nova Scotia, Manitoba, Saskatchewan — Kindergarten to Grade 6, Grade 7 to Grade 12; Prince Edward Island, New Brunswick, Alberta — Grade 1 to Grade 6, Grade 7 to Grade 12; Ontario — Kindergarten to Grade 8, Grade 9 to Grade 13; British Columbia, Quebec — Kindergarten to Grade 7, Grade 8 to Grade 12.

Table 11.12
STUDENTS ENROLLED IN MINORITY LANGUAGE COURSES AS A PERCENTAGE OF ENROLMENT IN MAJORITY LANGUAGE SCHOOLS, 1971-72[1]

	New-found-land	Prince Edward Island	Nova Scotia	New Bruns-wick	Quebec	Ontario	Manitoba	Saskat-chewan	Alberta	British Columbia
Elementary	31.6	32.5	14.4	56.0	35.5	43.9	34.1	5.1	28.1	6.3
Secondary	58.2	66.6	65.0	70.9	100.0	39.4	45.3	55.7	34.5	57.2

1) See footnote 1, Table 11.11.

Table 11.13
STUDENTS ENROLLED IN MINORITY LANGUAGE AS LANGUAGE OF INSTRUCTION[1,2]

	QUEBEC		ALL OTHER PROVINCES	
	Elementary	Secondary	Elementary	Secondary
	per cent			
1970-71	143.9	82.0	99.2	47.5
1971-72	139.5	85.0	97.1	47.2
1972-73	133.4	88.6	99.2	44.9

1) See footnote 1, Table 11.11.
2) Language of instruction refers to the language in which the student takes all of his courses, not simply language courses. The percentages are based on the estimate, derived from 1961 Census data, of the school age population having the minority language as mother tongue.

Table 11.14
STUDENTS' PERCEPTION OF THEIR FACILITY IN ENGLISH AND FRENCH, BY GRADE AND PROVINCE, 1971[1,2]

	GRADE							
	6	7	8	9	10	11	12	13
	per cent							
Newfoundland:								
English only	93.2	98.3	97.7	95.6	98.1	97.6	100.0	91.4
French only	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.0
Both	6.8	1.7	2.1	4.4	1.8	2.3	0.0	8.6
Nova Scotia:								
English only	98.4	97.7	95.6	94.0	93.3	88.5	85.8	–
French only	0.1	0.0	0.0	0.0	0.1	1.0	0.1	–
Both	1.4	2.2	3.6	5.0	6.5	10.5	13.7	–
New Brunswick:								
English only	94.4	93.6	94.7	94.2	93.9	91.3	89.8	–
French only	0.3	0.1	0.2	0.3	0.1	1.2	0.1	–
Both	5.3	6.3	5.1	5.4	5.8	7.3	9.8	–
Quebec:								
English only	36.1	18.2	13.3	9.2	5.9	6.5	0.3	0.0
French only	47.2	56.4	60.9	65.1	62.2	51.4	50.2	64.1
Both	16.3	25.0	25.2	25.4	31.4	41.9	49.5	35.9
Ontario:								
English only	93.6	90.3	89.6	86.4	83.8	80.5	77.5	68.1
French only	0.4	0.5	0.5	0.7	0.7	0.7	1.0	0.7
Both	5.5	8.9	9.6	12.7	14.9	18.6	21.1	31.1
Manitoba:								
English only	92.1	90.4	90.3	91.2	88.2	85.4	87.9	93.3
French only	0.6	0.6	0.8	0.4	0.5	0.7	0.2	0.0
Both	6.9	8.2	8.8	8.1	10.5	13.5	11.4	6.7
Saskatchewan:								
English only	98.2	97.4	95.9	97.0	94.2	94.4	91.1	–
French only	0.5	0.0	0.7	0.1	0.0	0.9	0.3	–
Both	1.2	2.5	3.4	2.8	5.7	4.7	8.5	–
Alberta:								
English only	95.3	94.8	94.6	93.9	88.7	86.1	84.6	–
French only	0.7	0.3	0.2	0.1	0.1	0.4	0.0	–
Both	3.7	4.5	5.0	5.7	11.0	13.4	15.3	–
British Columbia:								
English only	97.7	97.8	93.2	91.8	90.2	86.4	86.4	90.9
French only	0.1	0.1	0.5	0.7	0.8	0.8	0.3	0.0
Both	2.0	1.9	6.2	7.3	8.7	12.4	12.9	9.1
CANADA:								
English only	90.6	80.5	82.4	77.9	72.3	68.8	74.8	68.1
French only	3.8	9.9	7.7	10.1	11.9	10.7	5.0	0.9
Both	5.3	9.3	9.6	11.7	15.4	20.3	19.9	30.9

1) Each student made a value judgment of his ability when answering the survey question, "Can you speak English or French well enough to conduct a conversation?" The "neither language" category was negligible, and has been omitted here; consequently the figures may not add to exactly 100%.
2) Data not available for Prince Edward Island.

Table 11.15
PUBLIC AND PRIVATE ELEMENTARY AND SECONDARY SCHOOLS BY LANGUAGE OF INSTRUCTION, 1972

	PUBLIC		PRIVATE		TOTAL		
	English	French[1]	English	French[1]	English	French[1]	Total
Newfoundland	764	–	2	1	766	1	767
Prince Edward Island	102	2	–	–	102	2	104
Nova Scotia	641	30	6	2	647	32	679
New Brunswick	343	201	9	1	352	202	554
Quebec[2]	461	3,232	58	274	519	3,506	4,025
Ontario[2]	4,414	381	272	10[3]	4,686	391	5,077
Manitoba	722	53	42	2	764	55	819
Saskatchewan	1,025	12	12	1	1,037	13	1,050
Alberta	1,242	35	33	1	1,275	36	1,311
British Columbia	1,558	1	142	–	1,700	1	1,701
CANADA	11,272	3,947	576	292	11,848	4,239	16,087

1) Includes some bilingual schools in some provinces.
2) 1971 data.
3) Estimate.

Table 11.16
USE OF LANGUAGE IN COMMUNICATION AT WORK FOR CERTAIN LANGUAGE GROUPS, QUEBEC, 1970

		LANGUAGE USE				
		Almost exclusively French	Almost exclusively English	Both languages	Other languages	Total
		per cent				
French-speaking		64	3	32	1	100
English-speaking		5	63	32	- -	100
Other		14	36	40	10	100
TOTALS	'000	1,207	334	764	36	2,341

Table 11.17
USE OF FRENCH BY OCCUPATION AND BY LANGUAGE GROUP IN QUEBEC, 1970

	French-speaking persons	English-speaking persons	Other
		percentage of work time	
Administrators	83.2	16.4	35.0
Professionals	88.1	15.7	26.5
Office workers	78.7	14.3	33.1
Salesmen	83.3	19.6	39.6
Service employees	87.1	21.1	36.3
Transport employees	85.0	19.1	26.3
Foremen	87.7	22.3	34.2
Laborers in the secondary sector	90.6	24.0	37.8
Laborers in the primary sector	97.4	12.4[1]	100.0[1]

1) Estimate based on fewer than 30 cases studied.

Table 11.18
RADIO STATIONS BY LANGUAGE, 1973

	Canada	New-found-land	Prince Edward Island	Nova Scotia	New Bruns-wick	Quebec	Ontario	Mani-toba	Saskat-chewan	Alberta	British Columbia
English	263	17	2	18	10	11	88	14	18	28	57
French	73	–	–	–	1	58	10	1	1	1	1
Bilingual	3	–	–	–	–	3	–	–	–	–	–

Table 11.19
TELEVISION STATIONS BY LANGUAGE, 1973

	Canada	New-found-land	Prince Edward Island	Nova Scotia	New Bruns-wick	Quebec	Ontario	Mani-toba	Saskat-chewan	Alberta	British Columbia
English	65	4	1	7	2	2	21	6	7	6	9
French	15	–	–	–	1	12	1	1	–	–	–
Bilingual	2	–	–	–	–	2	–	–	–	–	–

Table 11.20
CIRCULATION[1] OF DAILY NEWSPAPERS BY LANGUAGE, 1973

	Newfoundland	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia
English	40.3	110.3	77.2	70.1	20.2	85.3	83.0	49.2	75.9	97.7
French	—	—	—	5.9	49.2	1.8	—	—	—	—

1) As a percentage of the estimated number of households.

Table 11.21
WEEKLY NEWSPAPERS BY LANGUAGE, 1973

	English	French	Bilingual
CANADA	765	123	60
Newfoundland	9	—	—
Prince Edward Island	2	—	—
Nova Scotia	30	1	—
New Brunswick	14	1	3
Quebec	18	116	55
Ontario	296	2	1
Manitoba	63	1	1
Saskatchewan	103	—	—
Alberta	118	1	—
British Columbia	112	1	—

Table 11.22
GENERAL INTEREST MAGAZINES BY LANGUAGE

	1961	1971	1973
English	119	168	211
French	22	35	42
Bilingual	3	11	10

Table 11.23
UNIVERSITY RECRUITMENT WITHIN THE FEDERAL PUBLIC SERVICE

Number of appointments	1968	1969	1970	1971	1972
			per cent		
Anglophone[1]	80	71	77	76	72
Francophone[2]	20	29	23	24[3]	28
TOTALS	100	100	100	100	100
number	531	462	384	589[3]	861

1) Applicants who claimed to be English-speaking.
2) Applicants who claimed to be French-speaking.
3) 1971 totals do not include the Special Francophone Recruitment Program which resulted in 258 Francophone appointments.

Table 11.24
BILINGUAL ABILITY OF APPOINTEES TO EXECUTIVE (SX) CATEGORY[1] WITHIN THE FEDERAL PUBLIC SERVICE

	1968	1969	1970	1971	1972
			per cent		
Unilingual	66	69	71	66	59
Bilingual:					
Anglophone[2]	16	19	13	15	20
Francophone[3]	18	12	15	19	21
TOTALS	100	100	100	100	100
number	132	131	163	175	285

1) Executive (SX) category refers to government top management positions.
2) Bilingual candidates who claim English as preferred working language.
3) Bilingual candidates who claim French as preferred working language.

Table 11.25
LANGUAGE CHARACTERISTICS OF SELECTED EMPLOYEES IN THE FEDERAL PUBLIC SERVICE, 1972[1]

Language group affiliation[2]	Bilingual	Unilingual	Total
		per cent	
English	6.4	71.9	78.3
French	12.4	9.3	21.7
TOTALS	18.8	81.2	100.0
number	14,124	61,111	75,235

1) Employees in the executive, administrative and foreign service, scientific and professional, and technical occupational categories.
2) For the purpose of these statistics, language group affiliation was determined on the basis of language test results (claimed working language for non-tested employees.)

Table 11.26
NUMBER OF STUDENTS IN FEDERAL GOVERNMENT LANGUAGE PROGRAMS, BY JOB CATEGORY, 1971-72

	STUDENTS			GRADUATED DURING THE YEAR		
	French program	English program	Total	French program	English program	Total
Senior Executive (SX)	146	—	146	27	—	27
Scientific and professional	1,154	237	1,391	126	58	184
Administrative, foreign service	2,439	284	2,723	244	68	312
Technical	535	74	609	40	14	54
Administrative support	810	294	1,104	16	56	72
Operational	24	28	52	—	4	4
Other	2,025	201	2,226	202	55	257
TOTALS	7,133	1,118	8,251	655	255	910

Native Peoples

12

In the last few years there has been a very significant increase in the concern for the welfare and well-being of the Indian and Inuit populations in Canada. Until recently these people were largely ignored by the rest of Canada, or at the most regarded as carriers of an earlier civilization rather than as an integral part of Canadian society. The worldwide fame and recognition of Inuit art, the aboriginal land-claims disputes, controversy involving the legal definition of Indian women, and a generally more demanding and confident attitude on the part of the indigenous peoples have awakened the rest of Canada to the problems and the destiny of the native population.

This chapter portrays some of the basis socio-demographic aspects, past and present, of the native peoples. The social statistics presented are intended to indicate the relative sizes and characteristics of these groups.

It has been estimated that before the Europeans came to Canada there were 200,000 Indians and 10,000 Inuit belonging to many different and distinct cultures. Through wars and disease the number of Indians dropped to about 100,000 by 1901. This situation has now been reversed and the Indian population is increasing at about twice the rate of the rest of the Canadian population. The high proportion of young people in the native population is a force for social change, and they will be demanding more say in what is done for and by the Indian people.

Currently there is little consensus on what constitutes viable solutions to the problems of the native peoples and in some areas there is even disagreement as to what the problems are. That there is no unity of purpose among various organized groups of Indians and Inuit should not be surprising, since they are peoples from very different areas, cultures and linguistic groups, with varying aims and objectives. Most Indians live on 700 reserves, in 565 bands belonging to 10 major linguistic groups in six cultural areas. The Inuit live in more than 50 settlements scattered throughout the Northwest Territories and Arctic Quebec.

INDIANS

It bears emphasis that the multiculturalism prevalent throughout Canada has a parallel in the rich diversity within the Indian culture, with its variations in songs, dances, tribal mythologies, religions, attitudes, and conceptions of life and work, and yet a common realization that they are part of the natural environment.

There are many old and new threats to the preservation of these cultures. The native peoples were quickly swamped by the values and mores of the Europeans. Their religions were taken from them, and, indeed, even until 1951, it was illegal for the tribes concerned to hold their potlatch. Conversion to Christianity may have reduced the number of medicine men at the time when many Indians were dying from diseases and wars. More recently the growing migration of Indians to the cities has raised the fundamental issue of whether the reserves have helped to preserve traditions or have kept the Indians isolated from the mainstream of Canadian society and made them dependent on the government for their existence.

INUIT

By and large, the Inuit have had a much shorter history of contact with Europeans. Until the Second World War they had only met with whalers, traders and missionaries, and the occasional explorer or law officer. There has been a dramatic change in the north over the post-war years. Opportunities arising at trading posts and from the construction of military installations by the Allies led to the congregation of Inuit in larger centres. Especially as some of these centres were phased out, social problems became highly visible. The Canadian government then invested a large effort in the development and administration of its northern territories: medical facilities, schools and housing were given high priority, with southern institutions essentially being transplanted to the north. It is only recently, however, that real progress has been made in tailoring these institutions to the needs of native northerners.

MÉTIS

The 1941 Census was the last to single out the Métis.[1] Since many biological, socio-cultural and economic factors are taken into account in defining them, it is difficult to delineate them statistically, and only scattered data on them exist. Their numbers have been variously estimated as low as 60,000 and as high as 250,000. Some hint of the numbers involved can be obtained by looking at those people of other than Indian ethnic origin who give Indian as their mother tongue (see Table 12.22), although this estimate would, of course, be on the low side.

The Métis suffer from the disadvantages identified with Indians, but they do not share the advantages of the Registered or Status Indian.[2] They do not have reserve lands and they do not benefit from the special

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[1] A term originally only applied to people of mixed Indian and European blood, but more recently applied also to non-status Indians.

[2] Briefly, those entitled to be registered are persons who were considered Indians or members of an Indian Band on May 26, 1874, or are descendants through the male line of the above. These are the two main categories; for further explanation see the Indian Act, R.S.C. 149.

government programs for Indians, although certain other federal programs are designed for the benefit of this group.

DATA

In the data below there are gaps and inconsistencies. It is difficult to get even an accurate count of the populations: of the Inuit because of their small numbers, isolation and migratory way of life; of Métis because of the problems described above; and of Indians mainly because of the definition of who is an Indian. The Department of Indian Affairs and Northern Development only counts registered Indians under its jurisdiction. When registered Indians become enfranchised,[3] either through choice or through marriage to non-Indians in the case of women, then they cease to be counted as Indians by the Department. The Census of Canada counts as Indian anyone who calls himself Indian, whether registered or not, and also anyone who can trace Indian ancestry through the father's line.

Few demographic data on the Inuit are available and it should be noted that most of the rates quoted apply only to the Inuit of the Northwest Territories where about 65 per cent of the Inuit live. Data for Indians, other than straight population counts, apply only to registered Indians and are collected by the Department of Indian Affairs and Northern Development.

Similar comments apply to the health data shown here. It is not possible to obtain hospitalization and death rates by cause for Indians in other than the north since these data are not collected by ethnic origin. It was not considered useful to give the rates for the Indians in the Northwest Territories because these comprise only about two per cent of all the Indians in Canada. Housing conditions on Indian reserves were included after "health" because housing conditions have an influence on health.

[3]On enfranchisement an Indian gives up his rights under the Indian Act. Enfranchisement in this sense is not synonymous with the possession of voting rights. All Indians were guaranteed the right to vote in 1960, before which time only about one in four were eligible.

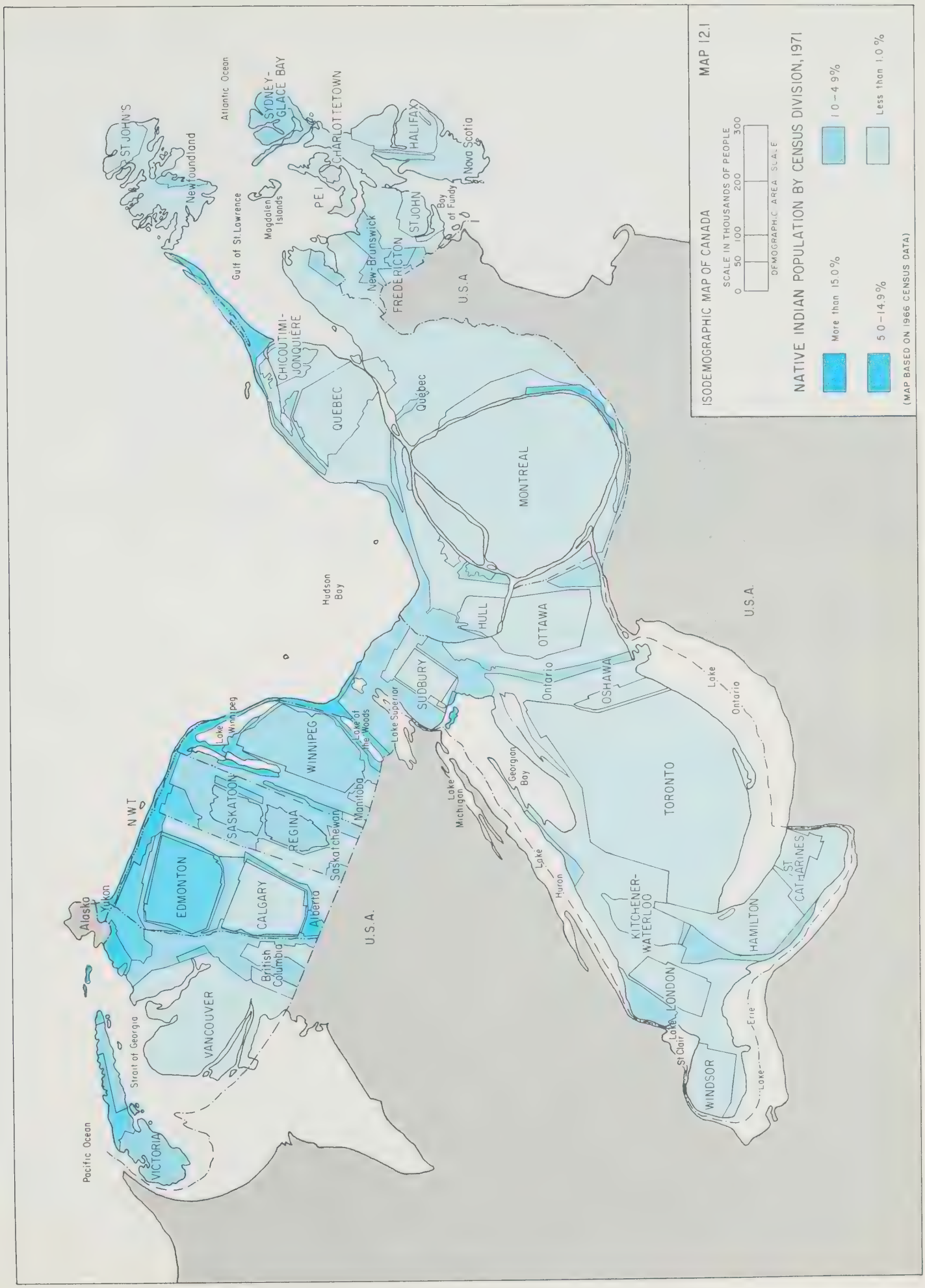
MAP 12.1
ISODEMOGRAPHIC MAP OF CANADA
SCALE IN THOUSANDS OF PEOPLE
0 50 100 200 300
DEMOGRAPHIC AREA SCALE
NATIVE INDIAN POPULATION BY CENSUS DIVISION, 1971
More than 15.0%
10-49%
5.0-14.9%
Less than 1.0%
(MAP BASED ON 1966 CENSUS DATA)
ST JOHN'S
Newfoundland
Atlantic Ocean
SYDNEY-GLACE BAY
CHARLOTTETOWN
HALIFAX
Nova Scotia
Gulf of St. Lawrence
Magdalen Islands
PEI
ST JOHN
Bay of Fundy
New-Brunswick
FREDERICTON
U.S.A.
CHICOUTIMI-JONQUIÈRE
QUEBEC
Québec
MONTREAL
Hudson Bay
HULL
OTTAWA
Ontario
OSHAWA
SUDBURY
Lake Superior
Lake of the Woods
WINNIPEG
Lake Winnipeg
Manitoba
Saskatchewan
REGINA
SASKATOON
NWT
Yukon
Alaska
EDMONTON
CALGARY
Alberta
British Columbia
VANCOUVER
Strait of Georgia
VICTORIA
Pacific Ocean
Lake Michigan
Georgian Bay
Lake Huron
TORONTO
Lake Ontario
KITCHENER-WATERLOO
HAMILTON
ST CATHARINES
LONDON
Lake St Clair
WINDSOR
Lake Erie

Table 12.2
CULTURE AREAS, LINGUISTIC GROUPS AND THEIR LOCATIONS, NATIVE INDIANS

Culture areas	Linguistic group	Location
Algonkian	Algonkian	Eastern and Central woodlands
Iroquoian	Iroquoian	Southern Quebec and Southeastern Ontario
Plains	Algonkian Athapaskan Siouan	Prairies
Plateau	Salishan Athapaskan Tlingit Kootenayan	Interior plateau of British Columbia and Yukon
Pacific Coast	Tsimshian Haida Salishan Wakashan	Coast of British Columbia
Mackenzie	Athapaskan	Mackenzie River system and woodlands north of Churchill River

Table 12.3
POPULATION COUNTS OF THE NATIVE PEOPLES

	Registered Indian population[1]		CENSUS OF CANADA	
			Indians	Inuit
1929	108,012	1881	108,547	..
1934	112,510	1901	127,941[2]	..
1939	118,378	1911	105,492	119
1944	125,686	1921	110,814	2,910
1949	136,407	1931	122,911	5,979
1954	151,558	1941	118,316[3]	7,205
1959	179,126	1951	155,874	9,733
1960	185,169	1961	208,286[4]	11,835
1961	191,709	1971	295,215[4]	17,550
1966	224,164			
1971	257,619			

1) Data from Indian Affairs; prior to 1960 a census of Registered Indians was taken only every five years.
2) Includes 34,481 "Halfbreeds".
3) Excludes Métis or Halfbreeds. Prior to 1951 people of Indian and white parentage were counted as halfbreed Indians and were usually counted in with the Native Indian and Inuit population. In the 1951 Census peoples of mixed parentage off the reserves were counted in the same way as other ethnic groups, i.e., through the line of the father.
4) In 1961 and 1971, Indians in the Census were enumerated in two distinct categories, "Band Indians" and "Non-band Indians". The category "Band Indians" is intended to be equivalent to that of "Registered Indians" as identified by the Department of Indian Affairs and Northern Development. The number of Band Indians enumerated in 1961 was 170,702; in 1971 it was 231,120.

Chart 12.4
CRUDE BIRTH RATES

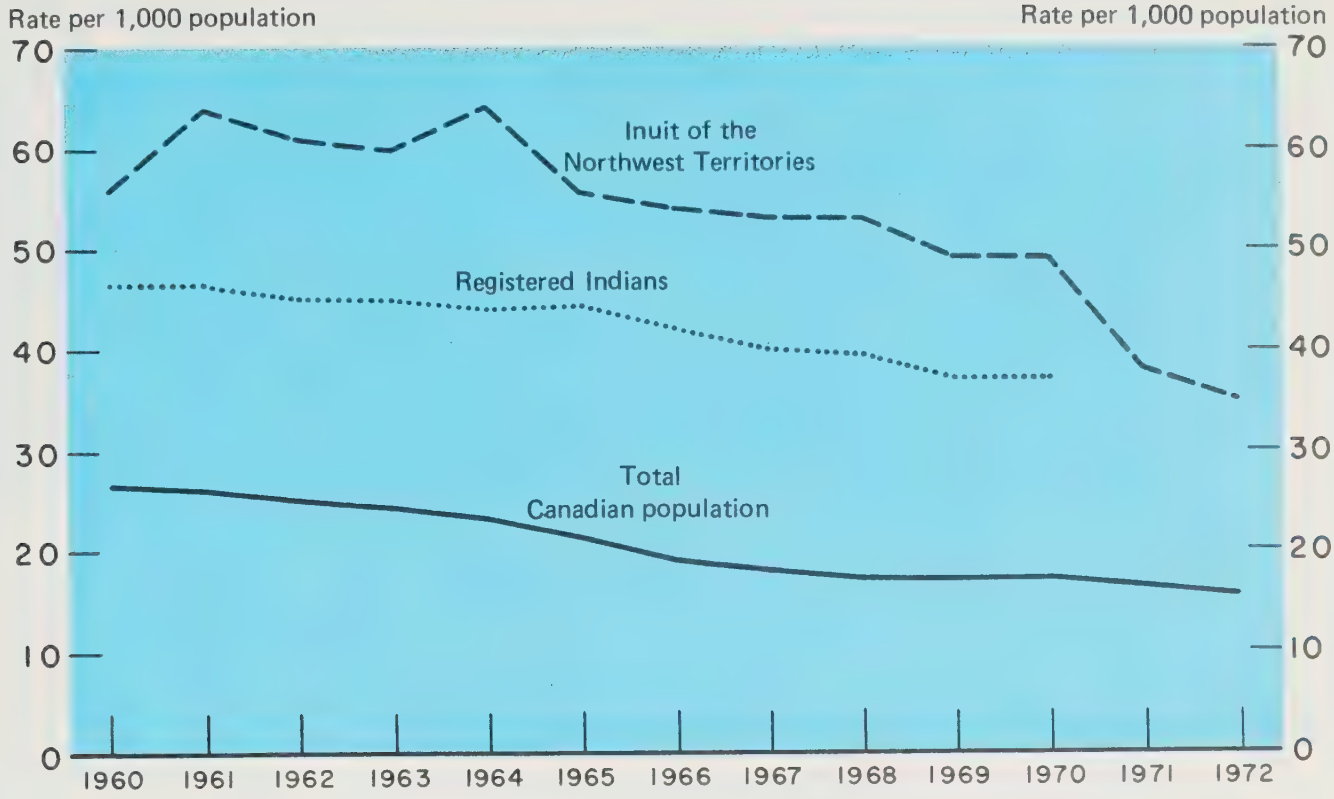

Chart 12.5
CRUDE DEATH RATES

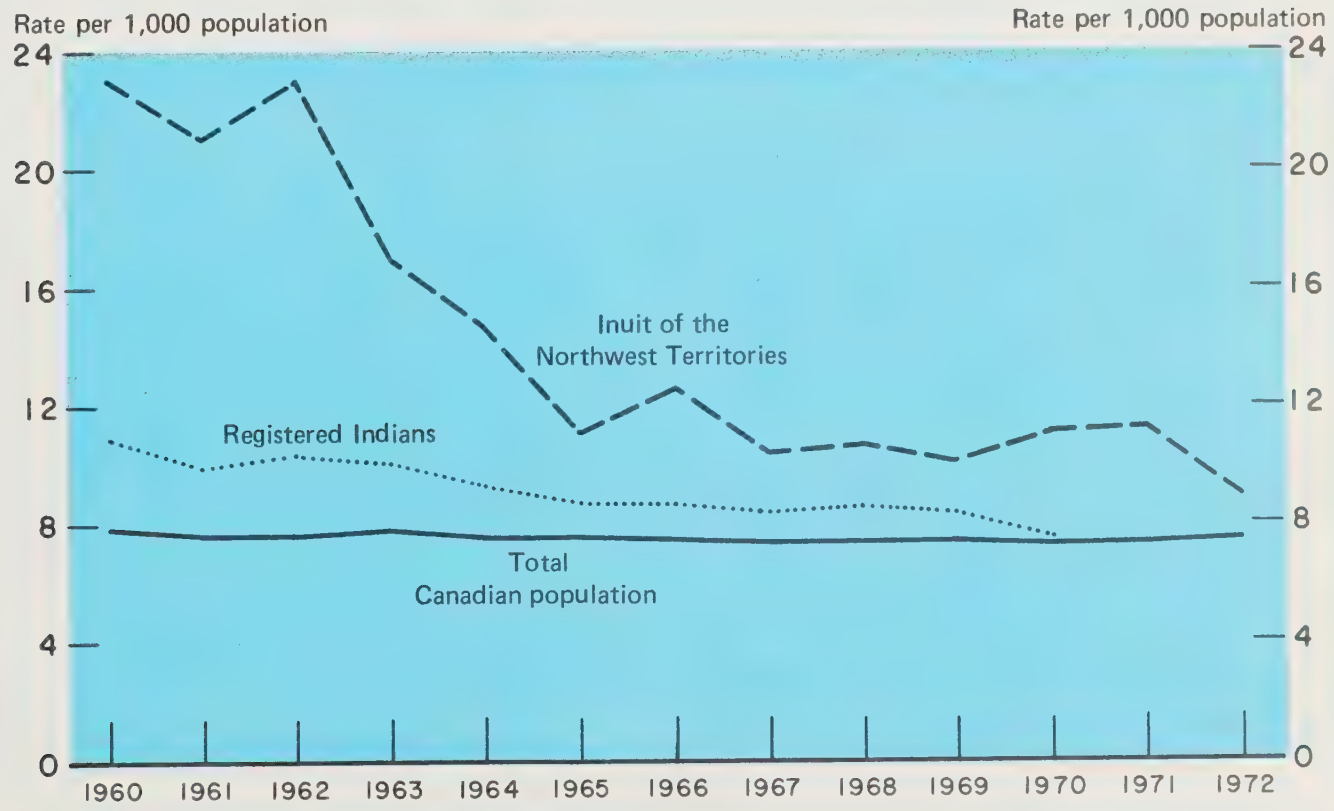

Chart 12.6
NATURAL INCREASE

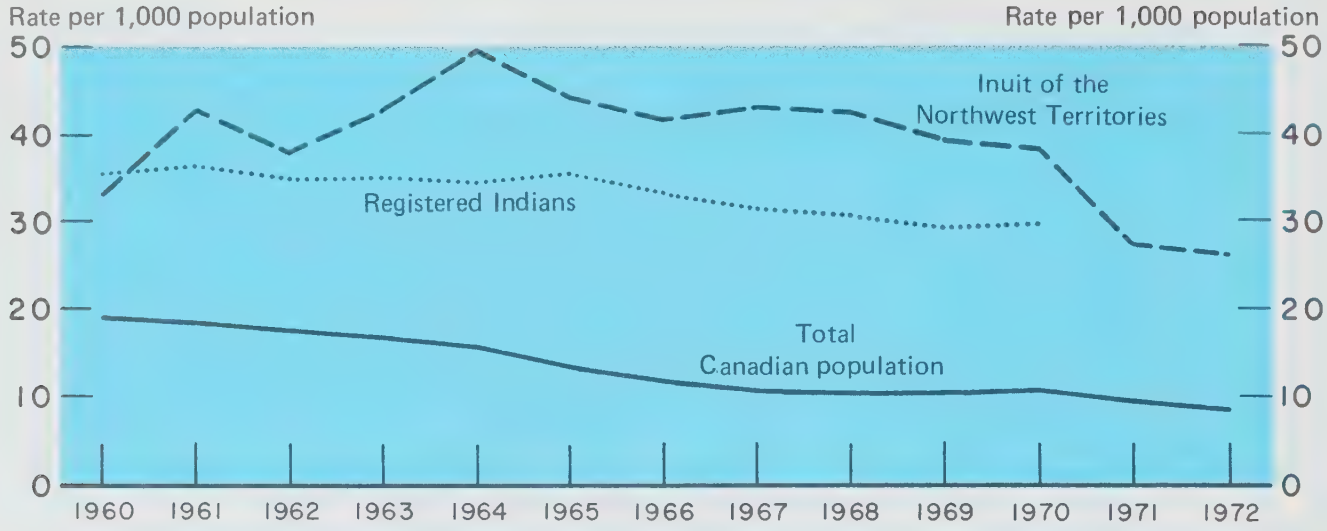

Table 12.7
ENFRANCHISEMENTS[1] OF REGISTERED INDIANS

Fiscal year	ENFRANCHISEMENTS UPON APPLICATION		ENFRANCHISEMENTS FOLLOWING MARRIAGE TO A NON-INDIAN		Total enfranchisements	Rate per 1,000 registered Indians
	Adults	Children[2]	Women	Children[2]		
1953	248	218	237	85	788	3
1955	192	130	337	97	756	3
1957	169	149	305	50	673	3
1959	221	248	433	221	1,123	6.1
1961	94	47	435	140	716	3.6
1963	46	38	287	102	473	2.2
1965	38	18	435	147	638	2.8
1967	62	28	470	56	616	2.6
1969	41	19	547	107	714	2.8
1971	14	4	267	19	304	1.1

1) On enfranchisement an Indian gives up his rights under the Indian Act.
2) Minor, unmarried children are automatically enfranchised with their parent(s).
3) These rates could not be calculated because there are no population data for these years.

Table 12.8
INDIAN AND INUIT POPULATION BY PLACE OF RESIDENCE

	URBAN AND RURAL DISTRIBUTION	
	1961	1971[1]
	per cent	
Rural	87.1	69.3
Farm	6.8	3.9
Non-farm	80.3	65.4
Urban	12.9	30.7
Cities of:		
100,000 +	6.6	15.9
30,000 - 99,999	1.3	2.9
10,000 - 29,999	1.1	4.5
5,000 - 9,999	0.8	2.0
2,500 - 4,999	0.9	1.6
1,000 - 2,499	2.2	3.8
TOTALS	100.0	100.0
Number	220,121	295,215

	PROVINCIAL DISTRIBUTION, 1971		
	Indians	Inuit	Indians and Inuit
		per cent	
Newfoundland	0.4	6.0	0.7
Prince Edward Island	0.1	—	0.1
Nova Scotia	1.5	0.1	1.4
New Brunswick	1.3	--	1.3
Quebec	11.1	21.4	11.7
Ontario	21.2	4.3	20.2
Manitoba	14.6	0.7	13.8
Saskatchewan	13.7	0.4	13.0
Alberta	15.1	0.8	14.3
British Columbia	17.7	1.2	16.8
Yukon	0.9	0.1	0.8
Northwest Territories	2.4	65.0	5.9
CANADA	100.0	100.0	100.0
Number	295,215	17,550	312,765

1) Indians only in 1971.

Table 12.9
INDIANS AND INUIT IN URBAN CENTRES

	1951	1961	1971[1]
Calgary	62	335	2,265
Edmonton	616	995	4,260
Hamilton	493	841	1,470
London	133	340	1,015
Montreal	296	507	3,215
Prince Albert	211	225	1,045
Prince Rupert	..	880	1,780
Regina	160	539	2,860
Saskatoon	48	207	1,070
Toronto	805	1,196	2,990
Vancouver	239	530	3,000
Winnipeg	210	1,082	4,940

1) Does not include Inuit.
Note: The cities chosen were those which in 1971 had the largest number of Indian residents. The numbers are probably underestimated since many new arrivals in a city are itinerant and are, therefore, very difficult to count in a census.

Table 12.10
REGISTERED INDIANS BY TYPE OF RESIDENCE

	On reserve	On crown land	Other (including not known)	Total	
	per cent				number
1959	73.2	9.9	16.9	100.0	179,126
1966	70.3	10.2	19.5	100.0	224,164
1967	69.0	9.2	21.8	100.0	230,902
1968	68.1	9.1	22.8	100.0	237,490
1969	66.4	9.3	24.3	100.0	244,043
1970	65.2	9.3	25.5	100.0	250,781
1971	64.5	8.7	26.8	100.0	257,619
1972	63.7	8.6	27.7	100.0	264,680

Chart 12.11
INDIAN AND INUIT POPULATION AS COMPARED TO THE TOTAL CANADIAN POPULATION: DISTRIBUTION BY AGE AND SEX, 1961 AND 1971

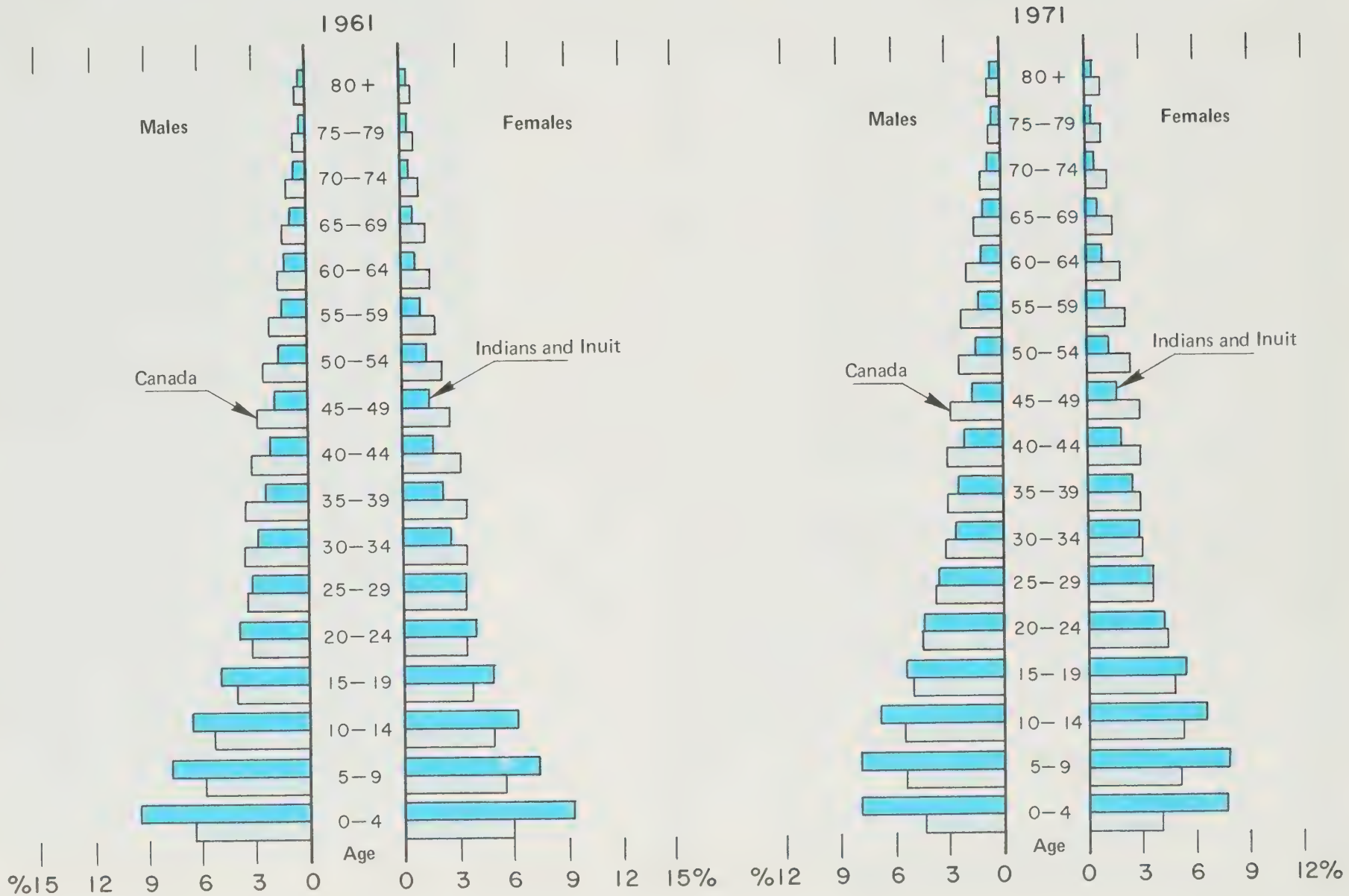

Table 12.12
AGE STRUCTURE OF THE REGISTERED INDIAN POPULATION

	AGE					DEPENDENCY RATIOS[1]	
	Under 15	15-64	65 +	All ages		Youth	Old age
	per cent				number		
1924	32.2	51.2	5.9	100.0	104,894[2]	62.9	11.5
1929	32.6	51.7	6.4	100.0	108,012[2]	62.9	12.4
1934	34.7	55.4	6.2	100.0	112,510[2]	62.7	11.1
1939	37.5	56.1	6.4	100.0	118,378	66.9	11.4
1944	37.5	55.9	6.6	100.0	125,686	67.0	11.8
1949	40.6	53.8	5.6	100.0	136,407	75.4	10.3
1954	41.7	53.2	5.1	100.0	151,558	78.5	9.6
1959	44.2	50.4	4.5	100.0	179,126[2]	87.7	8.9
1964	46.7	49.1	4.2	100.0	211,389	95.0	8.6
1968	46.8	49.0	4.2	100.0	237,490	95.6	8.6
1972	44.6	51.0	4.2	100.0	264,680[2]	87.4	8.3

1) The youth and old age dependency ratios reflect the relationship between the mostly child population and the mostly retired population and the mostly-working age population.

$$Youth = \left(\frac{persons\ aged\ 0\text{-}14}{persons\ aged\ 15\text{-}64}\right) \times 100.$$

$$Old\ age = \left(\frac{persons\ aged\ 65+}{persons\ aged\ 15\text{-}64}\right) \times 100.$$

See Chapter 1 for the all-Canada dependency ratios.

2) All ages includes cases of age unknown.

Chart 12.13
INFANT MORTALITY

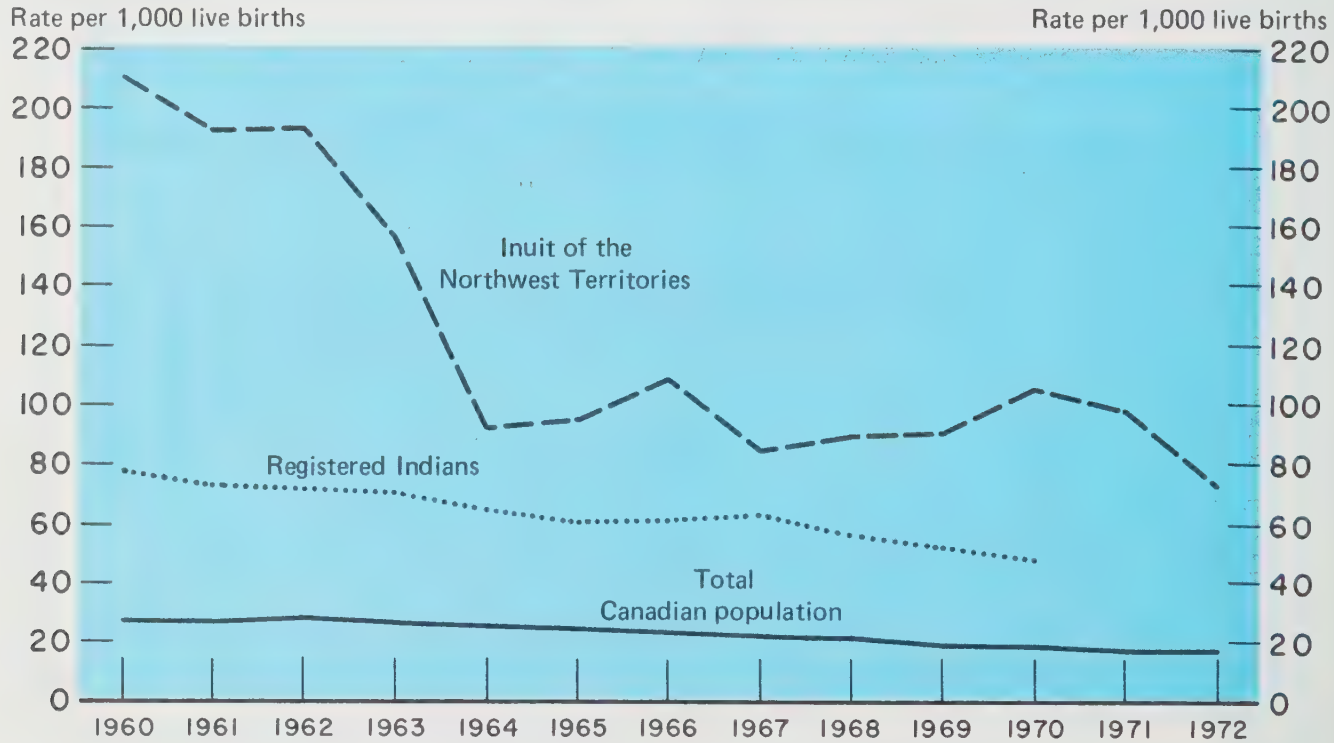

Table 12.14
SELECTED CAUSES OF HOSPITALIZATION OF INUIT IN THE NORTHWEST TERRITORIES[1]

	1962	1963	1964	1965	1966	1967	1968	Total Canadian population[2] 1968
	rate per 1,000 population							
Respiratory system diseases	204	90	78	83	72	67	65	24
Symptoms, senility and ill-defined conditions	116	10	9	12	11	10	11	4
Digestive system diseases	80	23	24	30	23	25	17	21
Accidents, poisonings and violence	98	15	12	17	14	19	17	14
Circulatory system diseases	8	6	5	9	15	7	5	13
Neoplasms	2	1	2	4	3	5	3	9
ALL CAUSES	848	299	236	282	231	254	238	157
Number of hospitalizations	7,024	2,569	2,110	2,653	2,265	2,613	2,564	3,255,165

1) Care should be taken in making comparisons since through scarcity of out-patient facilities in the north, cases might be hospitalized there which would not be in the rest of Canada.
2) Excluding newborns, and data from the Yukon and the Northwest Territories.

Table 12.15
SELECTED CAUSES OF DEATH OF INUIT IN THE NORTHWEST TERRITORIES

	1960	1962	1964	1966	1968	1970
	rate per 100,000 population					
Pneumonia:						
Inuit	803	628	392	337	279	267
All Canada	30	28	26	27	26	25
Diseases of early infancy and malformations:						
Inuit	290	169	134	204	158	155
All Canada	55	55	47	37	31	27
Injuries and accidents:						
Inuit	252	229	347	174	298	198
All Canada	62	63	64	67	67	68
Gastro-intestinal diseases:						
Inuit	126	109	56	92	9	34
All Canada	17	15	15	14	13	
Cardiovascular diseases:						
Inuit	25	24	45	61	19	69
All Canada	281	279	277	274	270	261
ALL CAUSES:						
Inuit	2,334	2,306	1,445	1,256	1,062	1,110
All Canada	782	773	756	749	740	732
Number of deaths:						
Inuit	186	191	129	123	114	129
All Canada	139,693	143,699	145,850	149,863	153,196	155,961

1) Data are not comparable for this year.

Table 12.16
INDIAN HOUSING ON RESERVES

	Number of family units	Families needing new houses	Total houses	Occupied houses needing major repairs
		per cent		per cent
1958	25,979	31.6	22,809	8.0
1960	23,055	29.4	24,730	6.8
1963	29,101	20.3	25,123	7.3
1965	30,399	19.7	26,517	9.1
1967	31,280	24.3	27,430	11.1
1969	32,882	25.4	28,417	13.3
1971	33,550	25.4	29,935	15.9

Table 12.17
CONDITION OF HOUSING ON RESERVES

	Good	Fair	Poor	Number of houses
		per cent		
ALL HOUSES:				
1958	40.4	30.2	29.4	22,809
1960	48.0	26.9	25.1	24,730
1963	50.7	28.7	20.6	25,123
1965	50.8	27.5	21.7	26,517
1967	49.7	26.9	23.4	27,430
1969	49.6	26.5	23.9	28,417
1971	47.4	26.8	25.8	29,935
Frame or other houses:				
1958	..	..	..	..
1960	..	..	..	..
1963	59.4	27.7	12.9	19,053
1965	60.1	26.2	13.7	20,120
1967	56.9	26.6	16.5	22,369
1969	55.0	26.8	18.2	24,111
1971	51.7	27.5	20.8	26,480
Log houses:				
1958	..	..	..	..
1960	..	..	..	..
1963	23.3	31.6	45.1	6,070
1965	21.4	31.7	46.9	6,397
1967	18.0	28.3	53.7	5,061
1969	19.6	24.8	55.6	4,306
1971	14.6	21.3	64.1	3,455

Chart 12.18
HOUSING ON INDIAN RESERVES BY NUMBER OF ROOMS PER HOUSE

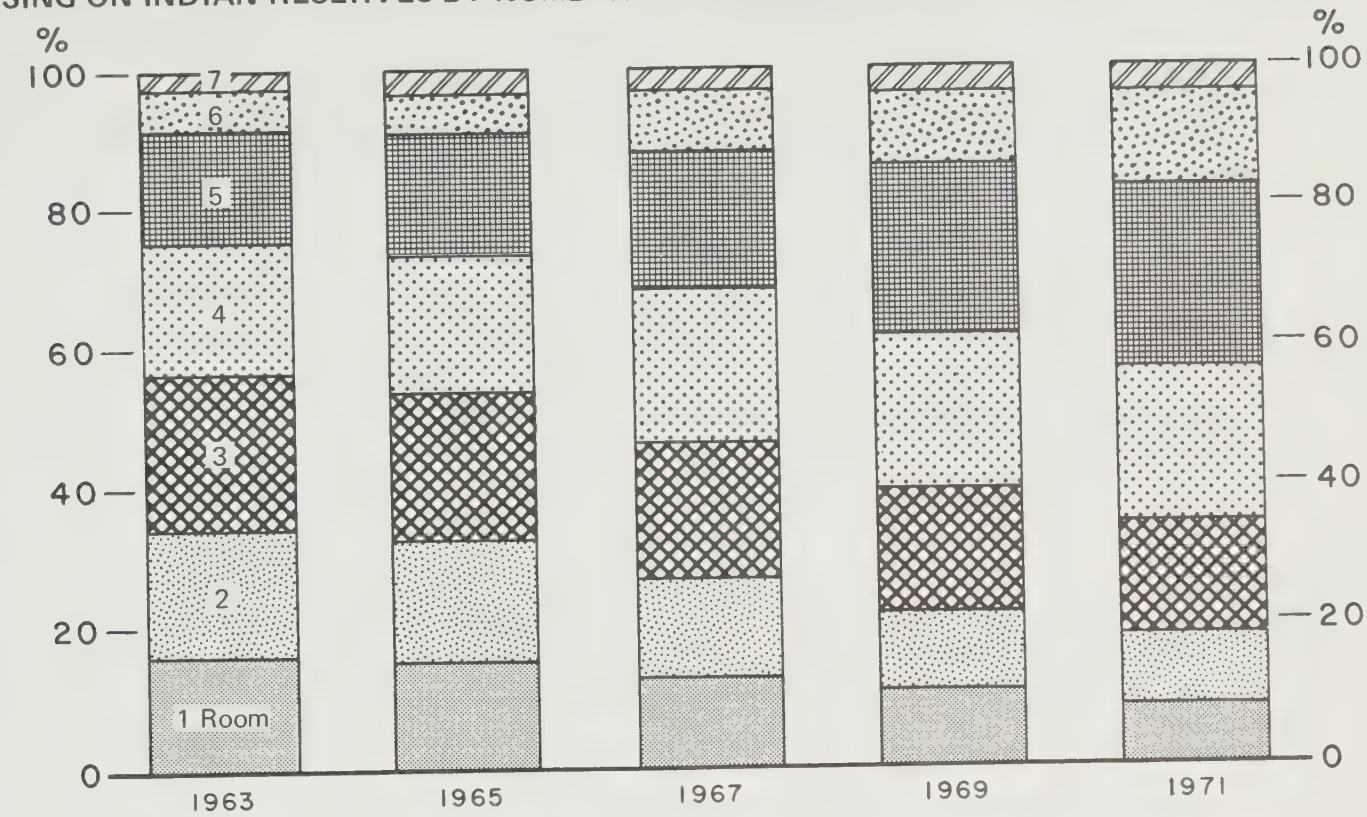

Chart 12.19
HOUSING ON INDIAN RESERVES WITH SPECIFIED FACILITIES

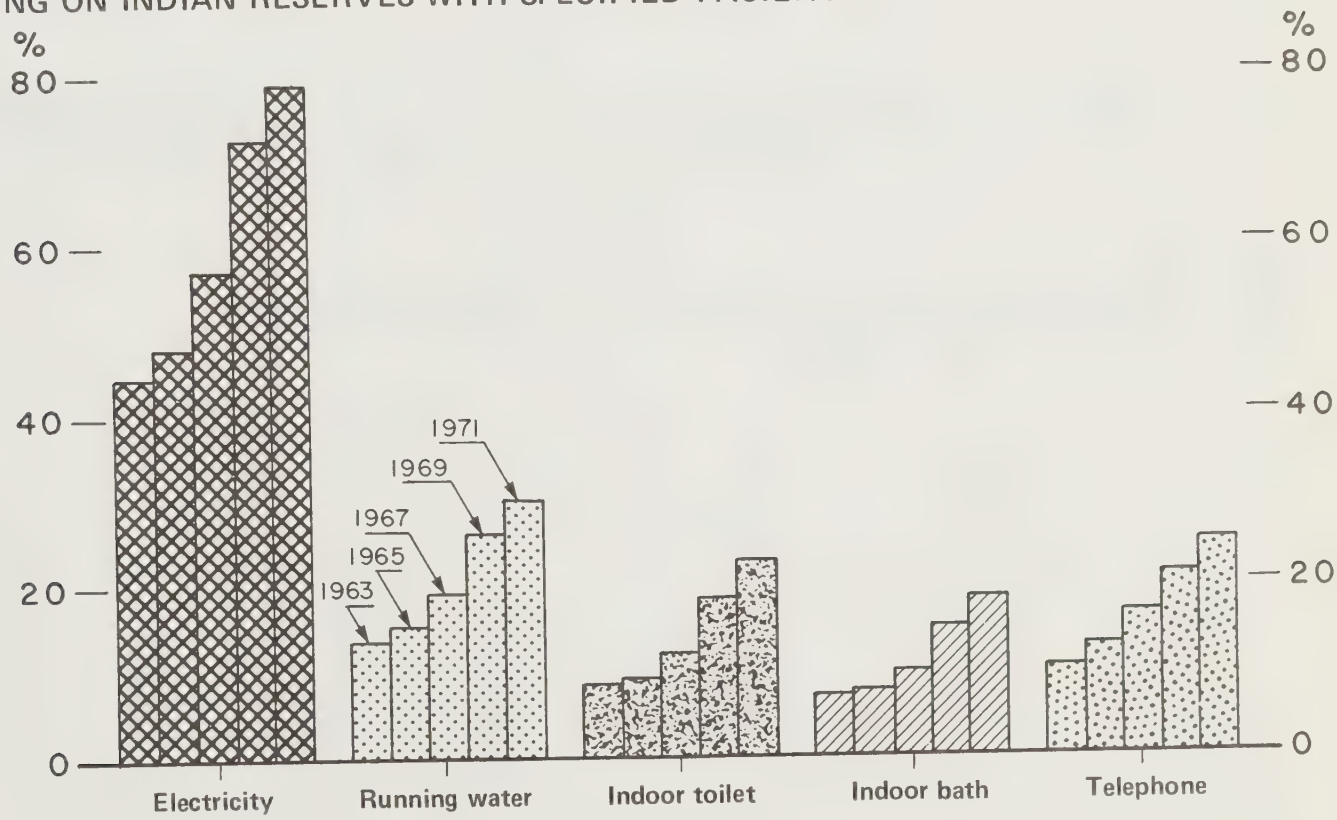

Table 12.20
MOTHER TONGUE OF PERSONS OF INDIAN AND INUIT ETHNIC GROUPS[1]

	1951	1961	1971
		per cent	
Indian and Inuit languages	82.6	71.4	53.9
English	15.4	26.7	40.5
French	1.5	1.7	4.3
Other	0.5	0.2	1.3
TOTALS	100.0	100.0	100.0

1) Mother tongue is the language first spoken and still understood.

Table 12.21
PERSONS OF INDIAN-INUIT MOTHER TONGUE AS A PERCENTAGE OF PERSONS OF INDIAN-INUIT ETHNIC GROUP

	1951	1961	1971
		per cent	
Under 15 years	85.0	69.3	54.5
15-24 years	87.1	75.1	53.2
25-44 "	89.0	81.1	58.6
45-64 "	91.1	87.4	66.2
65 +	94.4	91.0	73.2
ALL AGES	87.4	75.7	57.1

Note: Table 12.21 differs from 12.20 in that some of the persons in 12.21 with Indian-Inuit mother tongue are of other than Indian or Inuit ethnic origin.

Table 12.22
PERSONS SPEAKING INDIAN OR INUIT AT HOME BY MOTHER TONGUE AND ETHNIC ORIGIN, 1971

Mother tongue	ETHNIC ORIGIN				
	Indian-Inuit	British	French	Other	Total
Indian - Eskimo	124,650	730	555	1,010	126,945
English	6,080	660	105	810	7,655
French	240	15	180	95	530
Other	360	115	10	1,655	2,140
TOTALS	131,330	1,520	850	3,570	137,270

Table 12.23
ENROLMENT OF REGISTERED INDIANS BY TYPE OF SCHOOL[1]

School year	Elementary[2]	Secondary[3]	University	Teacher training	Vocational	All other[4]	Total	
			per cent					number
1959	93.2	5.6	0.1	0.1	0.7	0.3	100.0	40,637
1960	92.3	6.4	0.1	- -	0.8	0.4	100.0	42,124
1961	91.6	7.4	0.1	- -	0.5	0.4	100.0	45,857
1962	90.7	8.0	0.1	- -	0.5	0.7	100.0	48,035
1963	90.3	8.1	0.1	- -	0.9	0.6	100.0	50,394
1964	87.3	8.8	0.2	- -	1.9	1.8	100.0	53,846
1965	86.1	9.0	0.2	- -	2.2	2.5	100.0	57,720
1966	84.9	9.1	0.2	- -	2.4	3.4	100.0	60,883
1967	82.2	9.3	0.2	- -	3.0	5.3	100.0	64,049
1968	81.9	10.3	0.4	0.1	2.6	4.8	100.0	66,564
1969	76.5	10.3	0.4	0.1	3.3	9.4	100.0	75,509
1970	74.9	11.3	0.6	0.1	2.9	10.2	100.0	79,579
1971	73.8	11.6	0.6	0.1	3.2	10.7	100.0	83,325

1) The enrolment includes only students receiving some kind of aid from the Department of Indian Affairs and Northern Development.
2) Kindergarten to Grade 8 inclusive.
3) Grades 9 to 13 inclusive.
4) Includes nursing training, upgrading, special vocational and other miscellaneous courses.

Table 12.24
EDUCATIONAL ATTAINMENT BY MOTHER TONGUE AND AGE, 1971

	INDIANS AND INUIT		ALL CANADA	
	15-19 years	20 years and over	15-19 years	20 years and over
		per cent		
Elementary	58.7	79.6	12.8	36.8
Secondary	39.0	15.0	75.3	36.0
Post-secondary	1.8	3.8	7.0	15.4
University	0.5	1.7	4.9	11.9
TOTALS	100.0	100.0	100.0	100.0
Number of persons	18,355	83,655	2,112,700	13,076,805

Table 12.25
SOCIAL ASSISTANCE TO INDIANS RESIDING ON RESERVES, 1972-73

Administrative region	REASON FOR ASSISTANCE				Average monthly number of persons receiving assistance[4]
	Health[1]	Social[2]	Economic[3]	All	
Distribution of assistance	per cent				
Maritimes	15.4	15.9	68.7	100.0	5,621
Quebec	13.1	20.9	66.0	100.0	7,146
Ontario	36.6	—	63.4	100.0	7,754
Manitoba	20.6	19.3	60.1	100.0	15,126
Saskatchewan	11.7	26.5	61.8	100.0	19,137
Alberta	16.7	27.4	55.9	100.0	16,148
British Columbia	15.4	38.1	46.5	100.0	12,306
Yukon	14.9	51.6	33.5	100.0	1,286
CANADA	17.5	23.8	58.7	100.0	84,524
Assistance per person	dollars				Total amount of assistance
Maritimes	581	549	486	511	2,869,565
Quebec	451	380	362	377	2,697,047
Ontario	428	—	428	428	3,319,658
Manitoba	498	445	265	347	5,251,259
Saskatchewan	481	450	432	442	8,464,499
Alberta	464	477	328	391	6,321,123
British Columbia	670	700	569	635	7,809,935
Yukon	423	487	464	470	604,290
CANADA	498	514	395	442	37,337,376

1) The family head or the single person is unable to work or has inadequate earnings because of physical or mental disability, including advanced age.
2) The family head or the single person is unable to work or has inadequate income because he or she is giving care to an incapacitated spouse or parent or is giving care and supervision to the dependent children in the family. Health and Social reasons are combined in Ontario.
3) The family head or the single person does not come within either of the first two categories and he or she is unable to work or has inadequate earnings because of a lack of employment or other earning opportunities.
4) Includes family members dependent on the head of the family.

Table 12.26
INDIAN ECONOMIC ACCOUNT, LOANS APPROVED BY PURPOSE

Fiscal year	PURPOSE OF LOAN					ALL LOANS (100%)	
	Agri-culture	Fishing	Timber	Vehicles	Miscel-laneous	Number	Amount
	per cent						dollars
1953	76.4	8.7	6.3	6.9	1.7	126	138,414
1955	77.3	2.8	11.6	6.7	1.6	59	56,790
1957	64.3	12.9	12.4	6.4	4.0	131	181,554
1959	43.1	18.2	5.7	19.0	14.0	100	109,230
1961	54.9	4.8	1.2	21.0	18.1	120	220,355
1963	42.7	19.4	4.4	14.0	19.5	119	225,441
1965	54.3	9.2	8.8	17.3	10.4	139	393,883
1967	45.1	4.1	2.5	22.2	26.1	153	827,974
1969	40.4	16.2	6.1	12.0	25.3	353	3,055,724
1970	14.0	13.9	6.5	10.7	54.9	329	3,309,143

Table 12.27
INDIAN CRAFT INDUSTRIES

Fiscal year	ESTIMATED VALUE OF PRODUCTION		Actual sales from Arts and Crafts Centre, Ottawa
	For personal use	For sales	
	dollars		
1961	276,354	407,606	15,410
1962	305,560	608,704	22,552
1963	321,964	633,683	40,052
1964	334,130	986,617	60,295
1965	299,640	1,033,146	64,175
1966	315,350	1,128,744	80,895
1967	248,055	1,041,302	112,866
1968	230,366	1,184,462	133,257
1969	210,725	1,264,397	155,000
1970	383,647	1,491,662	279,165
1971	..	..	406,482

Cultural Diversity 13

Since 1608, when Champlain established a settlement at Quebec City, waves of people have been attracted to Canada by the prospects of adventure and improved opportunities, or have taken refuge here from persecution or deprivation in their homelands.

As the process of population formation and growth evolved, such phrases as "melting pot", "social mosaic", "cultural pluralism" and "national assimilation" have appeared. Currently, the concept of "multiculturalism" is used in Canada in connection with established government policies aimed at promoting the contributions of all ethnic groups to enhance a Canadian culture. It is a concept of a single society composed of the peoples of many other societies, and benefitting collectively from their individual contributions.

LANGUAGE

Canada is legally a bilingual nation and the majority speak one of the two official languages, English or French. The concerns of bilingualism are covered in Chapter 11. However, in the 1971 census, 13 per cent of the population had a mother tongue that was neither French nor English, and 7 per cent of the population was using a third language at home. Thirty-three of these languages are identified in the data; their presence is a reflection of the variety of cultural milieu present in our country.

It would be false to assume that people have the same culture because they speak the same language. However, language use is a major part of any social system, and is worthy of statistical examination. The degree to which people cease speaking a third language in their home is one measure of their assimilation into the Canadian culture, even though they may continue to engage in activities particular to their place of origin.

ORIGINS

There are several statistical series that can be used to help define the origins of people who are now Canadians. These show birthplace, country of former residence, and "ethnic origin". The latter are assigned national origins and, with a few exceptions, such as Jewish[1], relate to the geographic origin of the paternal ancestors of the census respondent.

It is important to recognize that there are serious problems with the available statistics on ethnic origin. In the census, for example, several respondents may report their ethnic origins largely according to their own personal perceptions and criteria. It is possible that the variation among respondents as to what "ethnic origin" means, and what criteria are pertinent to the identification of one's own ethnic origin, is so great that the statistics really ought to be used with extreme caution for certain detailed ethnic classifications. The problem of defining "ethnic origins" in such a way that consistent identifications and classifications can be made is very difficult and, as yet, the distinctions between some categories are unclear. Moreover, the conceptual problems are exacerbated by the fact that many native-born Canadians are on good ground when they argue that they ought to be able to report themselves as being of Canadian ethnic origin, and that statistics should clearly reflect such reports. In the data that follow, ethnic origin distribution and changes are shown for certain broad categories where these problems are partly attenuated. Nevertheless, even these figures should be used as indicators of broad patterns and trends and not of the precise relative sizes of properly measured ethnic groups in Canada. In addition, it is advisable to use ethnic origin data in conjunction with other data such as those on mother tongue, religion, and country of birth.

MAJOR DEVELOPMENTS

Throughout most of Canada's history, the largest groups of people have been those of French and British origin. Canadians claiming a British background today account for 45 per cent of the population and those of French origin constitute 29 per cent. At the time of Confederation, the equivalent figures were 60 and 31 per cent, so that over time the most significant change has been the relative reduction of the British proportion and the rise in numbers of Canadians of other than French or British origin (from 8 per cent in 1871 to 27 per cent in 1971).

Of the non-British, non-French group, over 70 per cent trace their ethnic origin to seven groups – German, Italian, Ukrainian, Dutch, Scandinavian, native Indian and Inuit, and Polish – although over 100 such groups were identified in the 1971 Census.

Data on birthplace and immigration illustrate developments over time and show the various waves of immigration.[2] The past decade has seen the rise in numbers of immigrants from Greece, Portugal, Asia and the United States, and a decline in the proportion from Britain.

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[1] Literally only a religious category. Also poor in the enumerative sense because in Jewish tradition, descent is matrilineal, so that a respondent may be Jewish because his or her mother was, but if the father was Polish, the census would categorize such a person as Polish.

[2] Immigration figures are available by "ethnic origin" up to 1966, after which time only figures by "country of former residence" were collected.

CONCLUSION

The value and enrichment to Canada from her cultural diversity is complex and difficult to gauge. Culture in its broadest sense would include language, religion and philosophies of life, ethical and moral values, ways of preparing and using food, customs related to births, marriages and deaths, myths and folklore, art, and even sense of humour. Canadian culture has evolved from the cultures of many other places and in the process of that evolution has generated aspects of all these items that are particularly Canadian. In spite of individual and governmental interest in multiculturalism, the extent to which each cultural group has contributed to Canadian life is still not something which can easily be quantified. We have identified some of these aspects in the data but the reader will recognize that these data are neither exhaustive nor all-inclusive.

Table 13.1
POPULATION BY MOTHER TONGUE

	1941		1951		1961		1971	
	number	%	number	%	number	%	number	%
English	6,488,190	56	8,280,809	59	10,660,534	58	12,973,810	60
French	3,354,753	29	4,068,850	29	5,123,151	28	5,793,650	27
Other[1]	1,663,712	15	1,659,770	12	2,454,562	14	2,800,850	13
TOTALS	11,506,655	100	14,009,429	100	18,238,247	100	21,568,310	100

1) See Table 13.2.

Table 13.2
MOTHER TONGUE OTHER THAN ENGLISH OR FRENCH

Language group	1941	1951	1961	1971
	per cent			
Arabic	0.5	0.3	0.5	1.0
Chinese	2.0	1.7	2.0	3.4
Czech and Slovak	2.3	2.7	2.1	1.6
Dutch	3.2	5.3	6.9	5.2
Finnish	2.3	1.9	1.8	1.3
German	19.4	19.8	23.0	20.0
Greek	0.5	0.5	1.7	3.7
Indian and Inuit	7.9	8.7	6.8	6.4
Indo-Pakistani	- -	0.1	0.2	1.2
Italian	4.8	5.6	13.8	19.2
Japanese	1.4	1.1	0.7	0.6
Magyar (Hungarian)	2.8	2.6	3.5	3.1
Polish	7.7	7.8	6.6	4.8
Portuguese	- -	- -	0.7	3.1
Russian	3.2	2.4	1.7	1.1
Scandinavian[1]	8.7	6.4	4.4	3.0
Serbo-Croatian	0.9	0.7	1.2	2.7
Ukrainian	18.8	21.2	14.7	11.1
Yiddish	7.8	6.2	3.4	1.8
Other	5.8	5.0	4.3	5.7
TOTAL OF LANGUAGES OTHER THAN ENGLISH OR FRENCH	100.0	100.0	100.0	100.0
Number	1,663,712	1,659,770	2,454,562	2,800,850

1) Scandinavian includes Norwegian, Swedish, Danish and Icelandic.

Table 13.3
MOTHER TONGUE AND LANGUAGE SPOKEN IN THE HOME, 1971

	Mother tongue (1)	Language of the home (2)	Percentage change from (1) to (2)
English	12,973,810	14,446,235	+ 11.3
French	5,793,650	5,546,025	- 4.3
German	561,085	213,350	- 62.0
Italian	538,360	425,235	- 21.0
Ukrainian	309,855	144,760	- 53.3
Native Indian	164,525	122,205	- 25.7
Netherlands	144,925	36,170	- 75.0
Polish	134,780	70,960	- 47.4
Greek	104,455	86,830	- 16.9
Chinese	94,855	77,890	- 17.9
Portuguese	86,925	74,765	- 14.0
Magyar (Hungarian)	86,835	50,670	- 41.6
Serbo-Croatian	74,190	29,310	- 60.5
Yiddish	49,890	26,330	- 47.2
Other	41,835	31,900	- 23.8
Finnish	36,725	18,280	- 50.2
Indo-Pakistani	32,555	23,110	- 29.0
Russian	31,745	12,590	- 60.3
Arabic	28,550	15,260	- 46.5
Czech	27,780	15,090	- 45.7
Norwegian	27,405	2,160	- 92.1
Danish	27,395	4,690	- 82.9
Spanish	23,815	17,710	- 25.6
Swedish	21,680	2,210	- 89.8
Gaelic	21,200	1,175	- 94.5
Slovak	17,370	9,465	- 45.5
Japanese	16,890	10,500	- 37.8
Inuit	15,295	15,080	- 1.4
Lithuanian	14,725	9,985	- 32.2
Estonian	14,520	10,110	- 30.4
Flemish	14,240	3,190	- 77.6
Lettish	14,140	9,250	- 34.6
Romanian	11,300	4,455	- 60.6
Icelandic	7,860	995	- 87.3
Welsh	3,160	370	- 88.3
TOTALS	21,568,310	21,568,310	

Chart 13.4
MOTHER TONGUE AND LANGUAGE SPOKEN IN THE HOME, 1971

(10 most common languages after French and English)

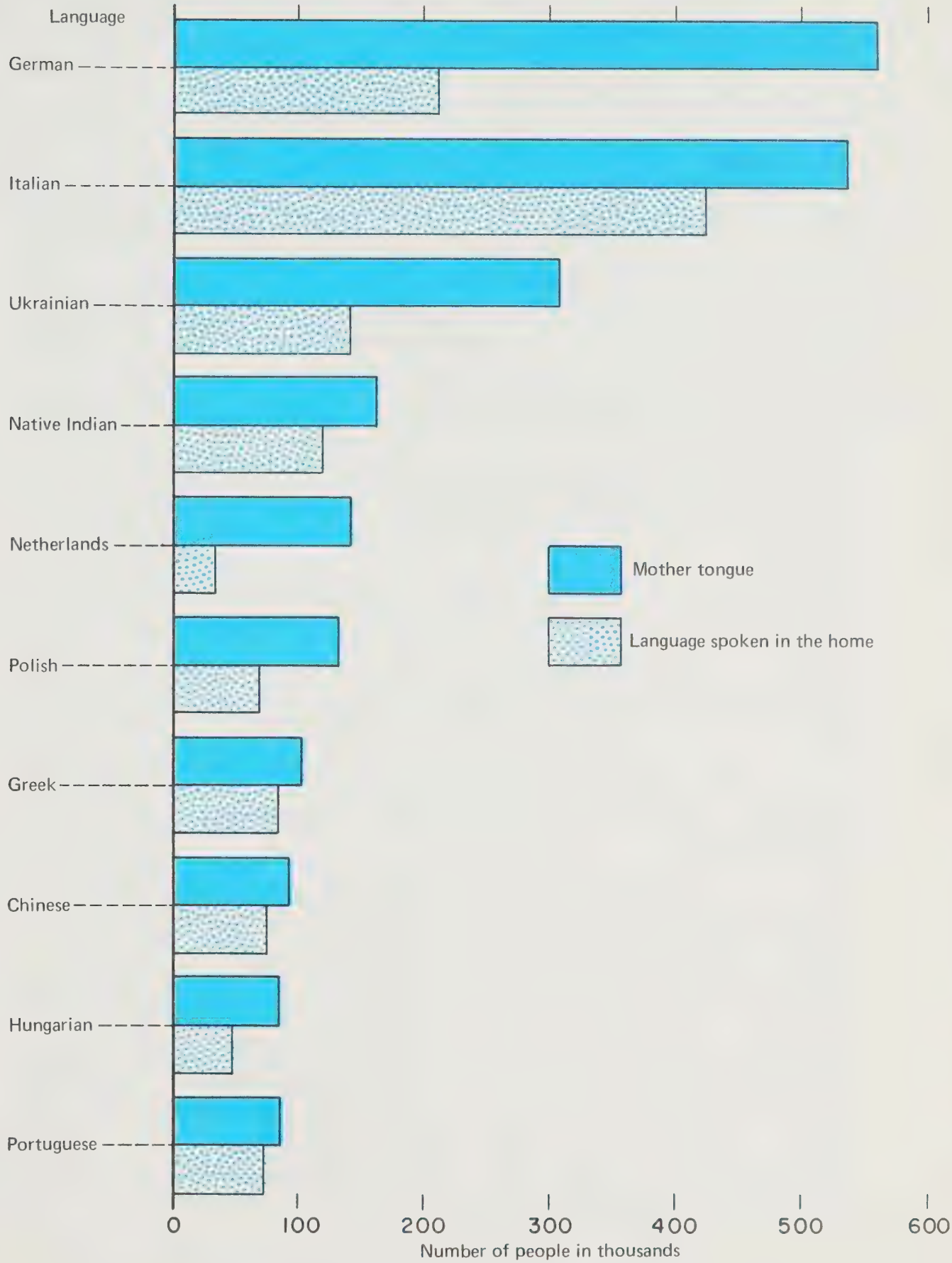


Table 13.5
POPULATION BY ETHNIC GROUP

	1871	1911	1921	1931	1951	1961	1971
				per cent			
Austrian	--	3.8	7.3	2.4	1.1	2.3	0.7
Belgian	--	0.8	1.4	1.3	1.2	1.3	0.9
Czech and Slovak	--	--	0.6	1.5	2.1	1.6	1.4
Dutch	10.1	4.9	8.0	7.2	8.9	9.1	7.4
Finnish	--	1.4	1.5	2.1	1.5	1.3	1.0
German	69.4	35.2	20.1	22.9	20.8	22.3	22.9
Greek	--	0.3	0.4	0.5	0.5	1.2	2.2
Hungarian	--	1.0	0.9	2.0	2.0	2.7	2.3
Italian	0.4	4.0	4.6	4.7	5.1	9.6	12.7
Jewish	--	6.7	8.6	7.6	6.1	3.7	5.2
Lithuanian	--	--	0.1	0.3	0.5	0.6	0.4
Polish	--	2.9	3.6	7.0	7.4	6.9	5.5
Roumanian	--	0.5	0.9	1.4	0.8	0.9	0.5
Russian	0.2	3.9	6.8	4.3	3.1	2.5	1.1
Scandinavian[1]	0.6	9.8	11.4	11.0	9.5	8.2	6.7
Portuguese[2]	--	--	--	--	--	--	1.7
Ukrainian	--	6.6	7.3	10.9	13.2	10.1	10.1
Yugoslav	--	--	0.3	0.8	0.7	1.4	1.8
Other European	1.3	0.6	1.2	0.4	1.2	1.9	1.7
Chinese	--	2.4	2.7	2.3	1.1	1.2	2.1
Japanese	--	0.8	1.1	1.1	0.7	0.6	0.6
Other Asiatic	--	0.6	0.7	0.7	0.6	0.7	2.2
Native Indian and Inuit	7.9	9.2	7.8	6.2	5.6	4.7	5.4
Other and not stated	10.1	4.6	2.7	1.4	6.3	5.2	3.5
TOTALS (other than French and British)	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number in thousands	293	1,147	1,465	2,068	2,980	4,699	5,764
French	31.1	28.6	27.9	28.2	30.8	30.4	28.7
British	60.5	55.5	55.4	51.9	47.9	43.8	44.6
Other	8.4	15.9	16.7	19.9	21.3	25.8	26.7
TOTALS	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number in thousands	3,689	7,207	8,788	10,377	14,009	18,238	21,568

1) Includes Danish, Icelandic, Norwegian and Swedish.
2) Included with "Other European" prior to 1971.

Chart 13.6
ETHNIC GROUPS OTHER THAN BRITISH AND FRENCH

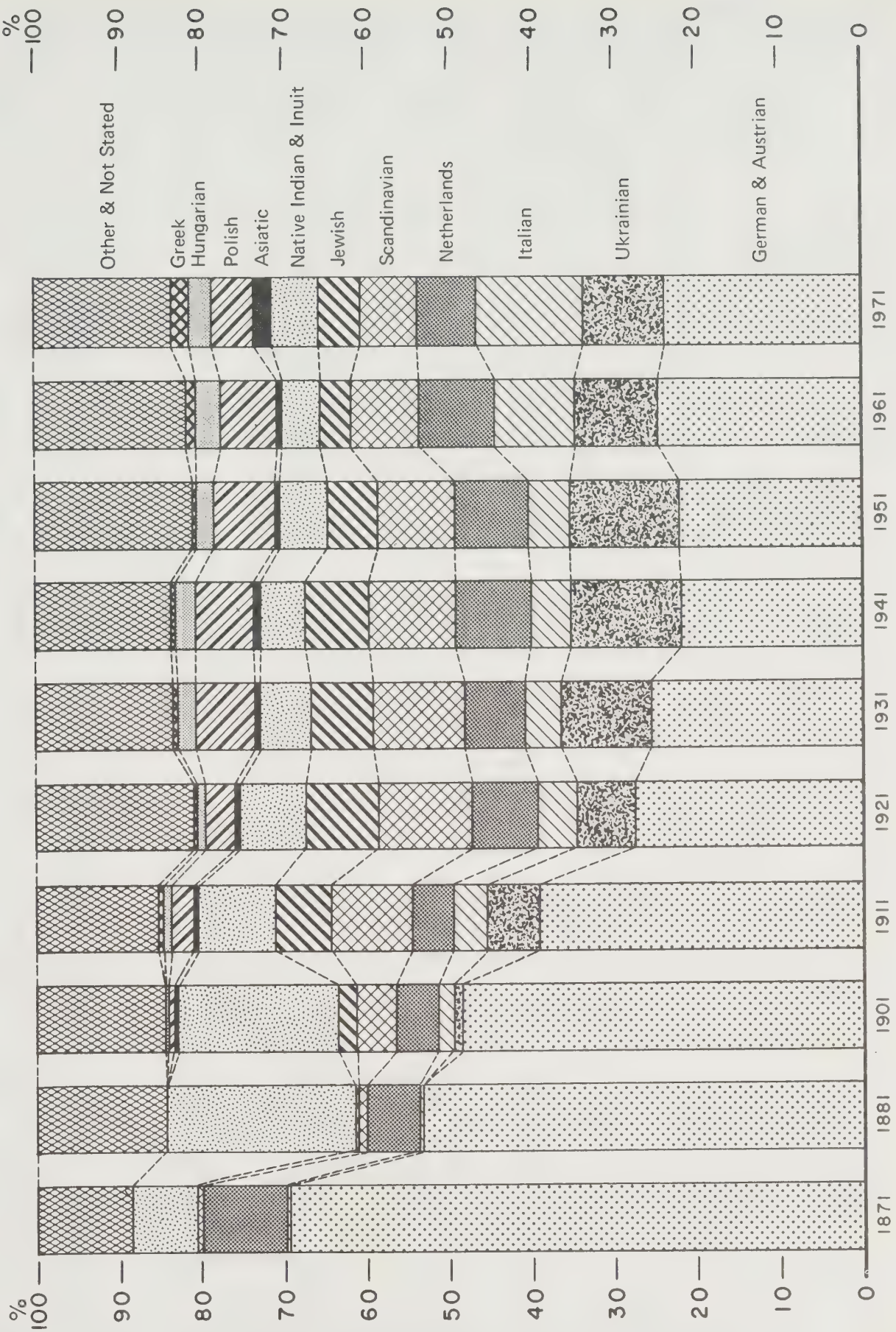
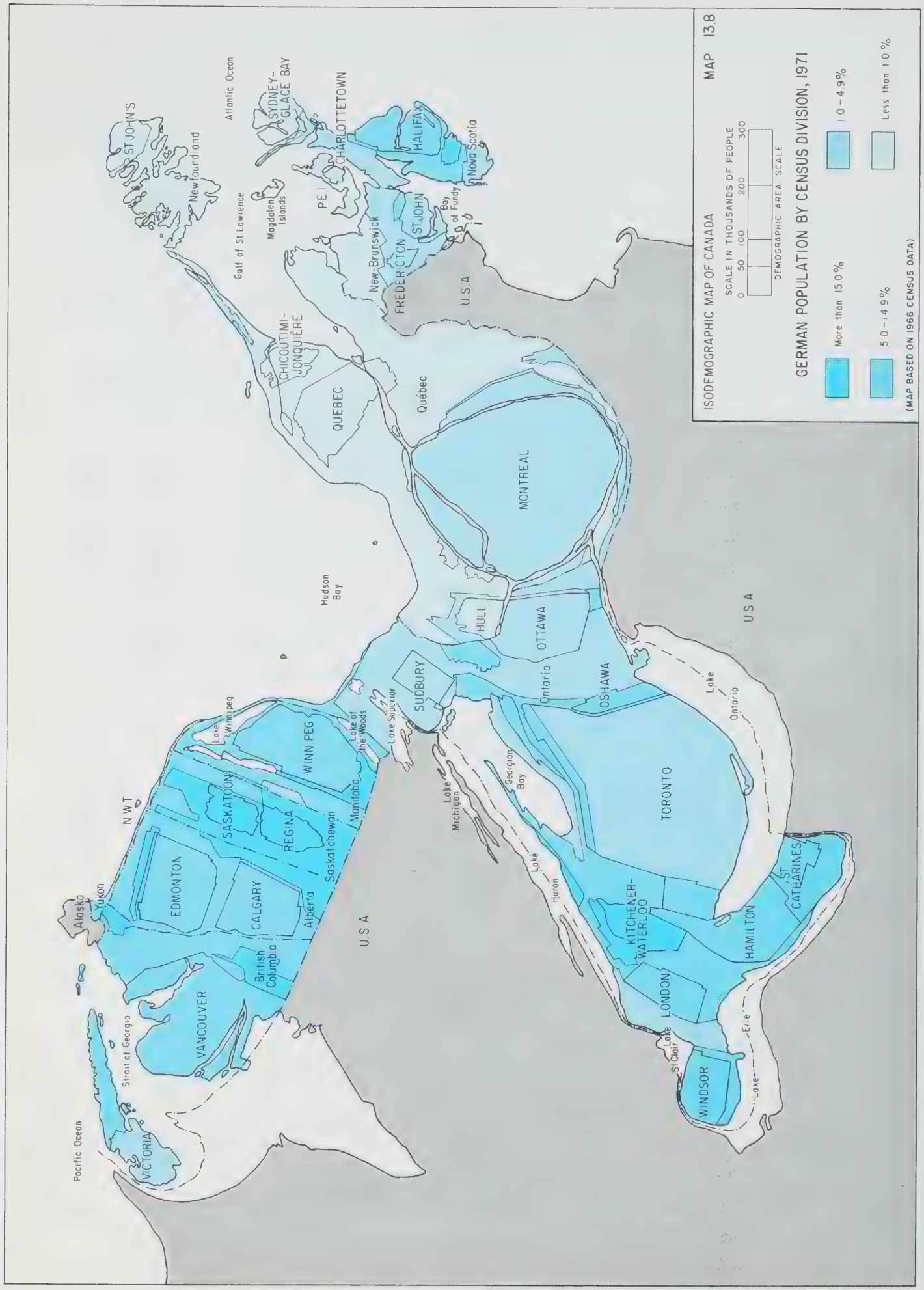


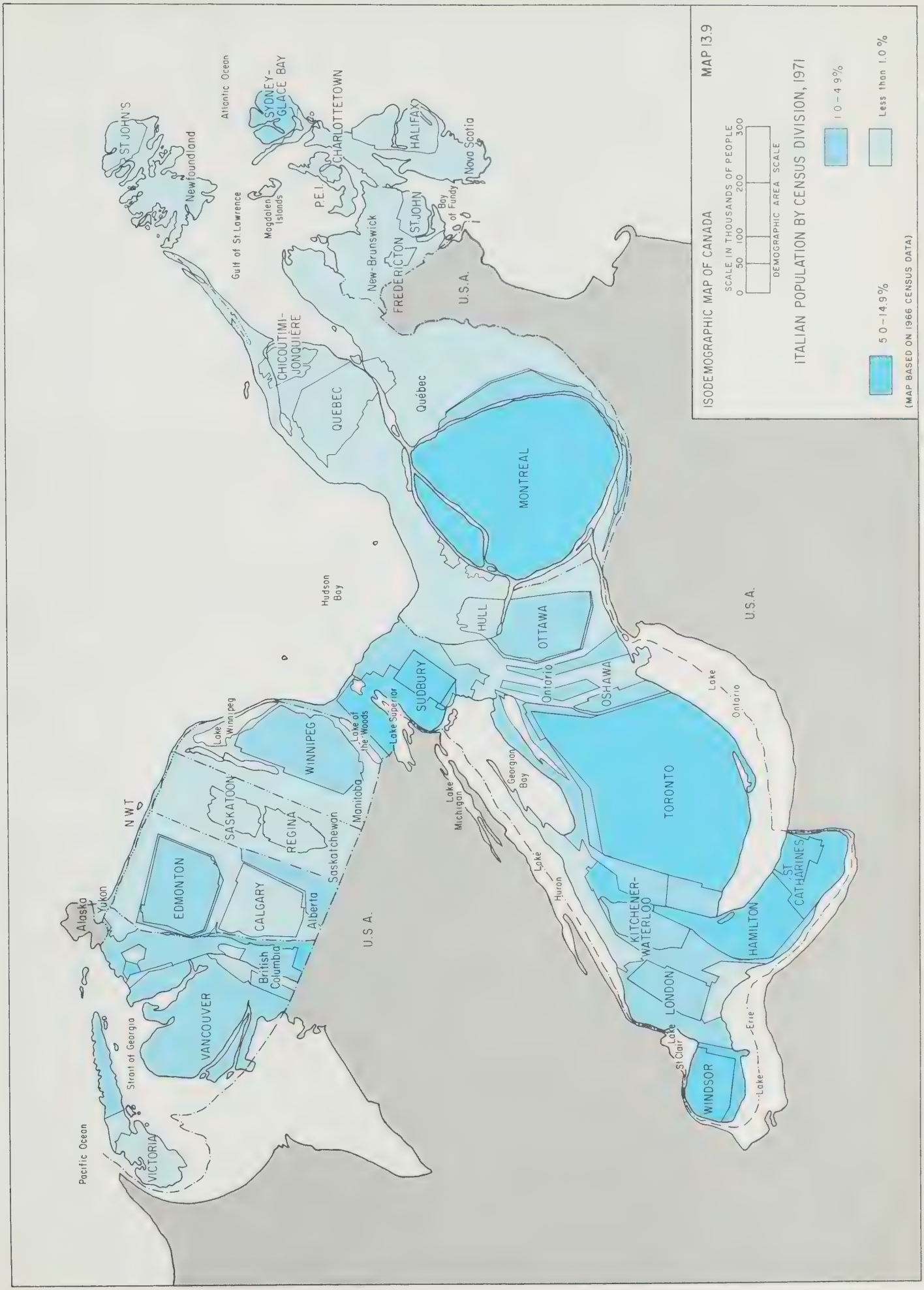
Table 13.7
POPULATION BY ETHNIC GROUPS, CANADA AND THE PROVINCES 1971

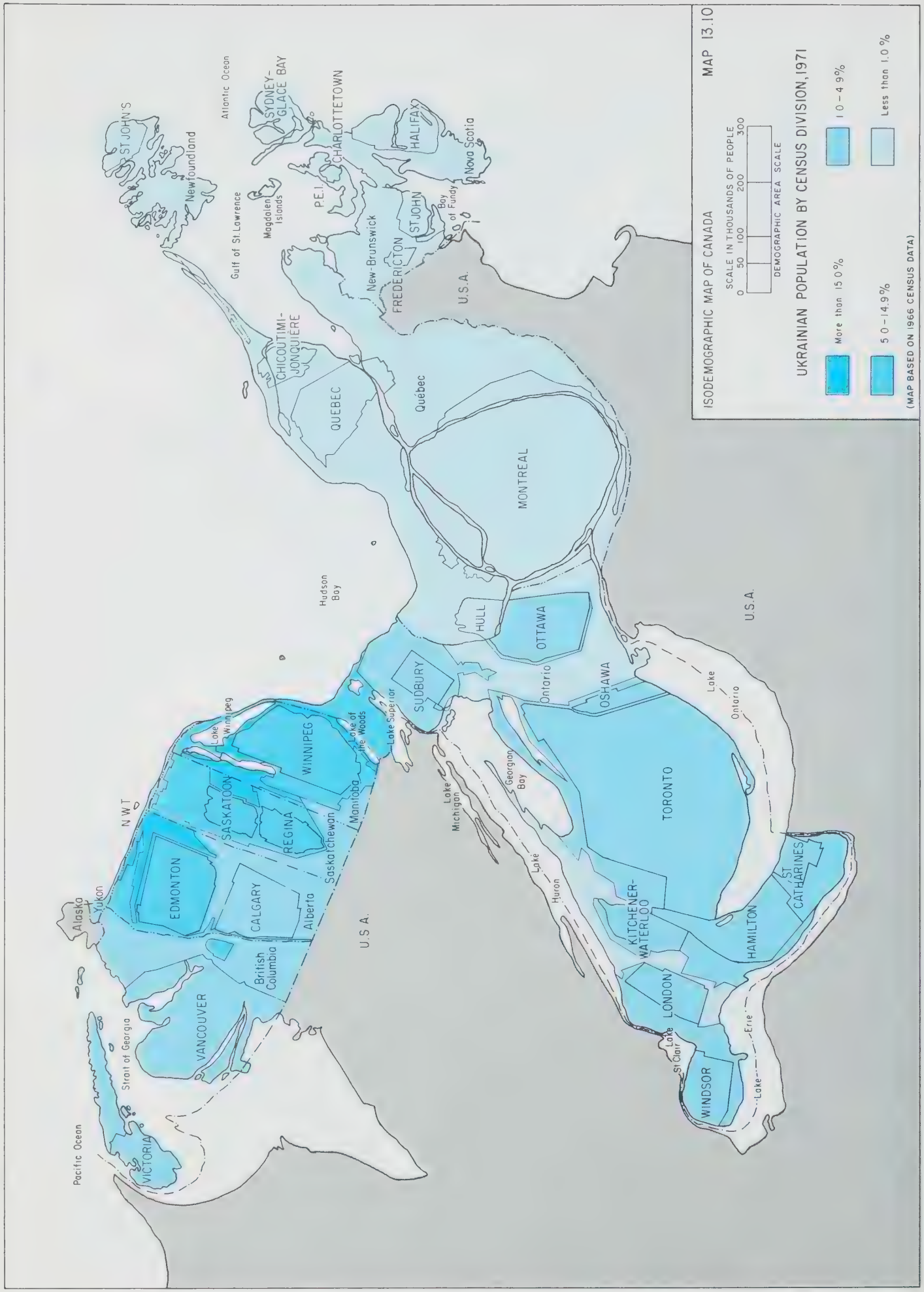
	New-found-land	Prince Edward Island	Nova Scotia	New Bruns-wick	Quebec	Ontario	Mani-toba
				per cent			
British Isles	93.9	82.7	77.5	57.7	10.8	59.3	41.9
French	3.0	13.8	10.1	37.1	79.1	9.6	8.9
Austrian n.e.s.	--	--	--	--	--	0.2	0.3
Belgian	--	0.1	0.1	0.1	0.1	0.3	0.9
Chinese	0.1	--	0.1	0.1	0.2	0.5	0.3
Czech	--	--	0.1	--	0.1	0.3	0.4
Danish	--	0.1	0.1	0.3	--	0.2	0.4
Dutch	0.1	1.1	1.9	0.8	0.2	2.7	3.6
East Indian	0.1	0.1	0.2	0.1	0.1	0.4	0.3
Estonian	--	--	--	--	--	0.2	--
Finnish	--	--	--	--	--	0.5	0.1
German	0.5	0.9	5.2	1.3	0.9	6.2	12.5
Greek	--	--	0.2	0.1	0.7	0.9	0.2
Hungarian	--	--	0.1	0.1	0.2	0.9	0.5
Icelandic	--	--	--	--	--	--	1.3
Indian (native)	0.2	0.3	0.6	0.6	0.5	0.8	4.4
Inuit	0.2	--	--	--	0.1	--	--
Italian	0.1	0.1	0.5	0.2	2.8	6.0	1.1
Japanese	--	--	--	--	--	0.2	0.1
Jewish	0.1	0.1	0.3	0.2	1.9	1.8	2.0
Latvian	--	--	--	--	--	0.2	0.1
Lithuanian	--	--	--	--	0.1	0.2	0.1
Norwegian	0.1	0.1	0.3	0.2	0.1	0.3	0.9
Polish	0.1	0.1	0.4	0.1	0.4	1.9	4.3
Portuguese	0.1	--	0.1	--	0.3	0.8	0.4
Roumanian	--	--	--	--	--	0.1	0.1
Russian	--	--	--	--	0.1	0.2	0.4
Slovak	--	--	--	--	--	0.2	0.1
Spanish	--	--	0.1	--	0.2	0.1	0.1
Swedish	--	--	0.1	0.1	--	0.2	0.9
Syrian-Lebanese	0.1	0.2	0.3	0.2	0.1	0.1	0.1
Ukrainian	--	0.1	0.3	0.1	0.3	2.1	11.6
West Indian	--	--	0.1	--	0.1	0.3	0.1
Yugoslav	--	--	--	--	0.1	0.9	0.3
Others and unknown	1.3	0.2	1.3	0.6	0.5	1.4	1.3
TOTALS	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	522,105	111,645	788,960	634,560	6,027,765	7,703,105	988,245

Table 13.7
POPULATION BY ETHNIC GROUPS, CANADA AND THE PROVINCES 1971 — Concluded

	Saskatchewan	Alberta	British Columbia	Yukon	Northwest Territories	Canada
			per cent			
British Isles	42.1	46.7	57.8	48.5	25.2	44.6
French	6.1	5.8	4.4	6.7	6.5	28.7
Austrian n.e.s.	0.4	0.4	0.5	0.6	0.2	0.2
Belgian	0.4	0.3	0.2	0.3	0.2	0.2
Chinese	0.5	0.8	2.0	0.5	0.3	0.6
Czech	0.5	0.6	0.4	0.4	0.2	0.3
Danish	0.6	1.2	1.0	0.8	0.5	0.4
Dutch	2.1	3.6	3.2	2.8	1.0	2.0
East Indian	0.2	0.3	0.9	0.1	0.2	0.3
Estonian	- -	0.1	0.1	0.1	- -	0.1
Finnish	0.2	0.2	0.5	0.5	0.1	0.3
German	19.4	14.2	9.0	8.5	3.8	6.1
Greek	0.1	0.2	0.3	0.1	0.1	0.6
Hungarian	1.5	1.0	0.8	1.1	0.3	0.6
Icelandic	0.3	0.2	0.3	0.2	0.2	0.1
Indian (native)	4.4	2.7	2.4	14.0	20.6	1.4
Inuit	- -	- -	- -	0.1	32.8	0.1
Italian	0.3	1.5	2.5	0.9	0.7	3.4
Japanese	- -	0.3	0.6	0.2	- -	0.2
Jewish	0.2	0.4	0.6	0.2	0.1	1.4
Latvian	- -	0.1	0.1	0.1	- -	0.1
Lithuanian	0.1	0.1	0.1	0.1	- -	0.1
Norwegian	3.9	3.2	2.4	2.6	1.5	0.8
Polish	2.9	2.7	1.4	1.3	0.8	1.5
Portuguese	- -	0.1	0.4	0.1	0.1	0.4
Roumanian	0.6	0.3	0.2	0.4	0.1	0.1
Russian	1.1	0.6	1.1	0.4	0.2	0.3
Slovak	0.1	0.2	0.1	- -	0.1	0.1
Spanish	- -	0.1	0.1	0.1	0.1	0.1
Swedish	1.6	1.5	1.5	1.7	0.5	0.5
Syrian-Lebanese	0.1	0.1	- -	- -	- -	0.1
Ukrainian	9.3	8.3	2.8	3.3	1.8	2.7
West Indian	- -	0.1	- -	0.1	- -	0.1
Yugoslav	0.2	0.5	0.7	0.8	0.3	0.5
Others and unknown	0.8	1.6	1.6	2.4	1.5	1.0
TOTALS	100.0	100.0	100.0	100.0	100.0	100.0
Number	926,245	1,627,875	2,184,620	18,390	34,810	21,568,310


MAP 13.8
ISODEMOGRAPHIC MAP OF CANADA
SCALE IN THOUSANDS OF PEOPLE
0 50 100 200 300
DEMOGRAPHIC AREA SCALE
GERMAN POPULATION BY CENSUS DIVISION, 1971
More than 15.0%
5.0–14.9%
1.0–4.9%
Less than 1.0%
(MAP BASED ON 1966 CENSUS DATA)
ST JOHN'S
Newfoundland
Atlantic Ocean
SYDNEY-GLACE BAY
CHARLOTTETOWN
HALIFAX
Nova Scotia
Gulf of St Lawrence
Magdalen Islands
PEI
ST.JOHN
Bay of Fundy
New-Brunswick
FREDERICTON
U.S.A
CHICOUTIMI-JONQUIÈRE
QUEBEC
Québec
MONTREAL
Hudson Bay
HULL
OTTAWA
Ontario
OSHAWA
Lake Ontario
U S A
SUDBURY
Lake Superior
Lake of the Woods
WINNIPEG
Lake Winnipeg
Manitoba
Saskatchewan
REGINA
SASKATOON
Alberta
CALGARY
EDMONTON
N W T
Yukon
Alaska
British Columbia
VANCOUVER
Strait of Georgia
VICTORIA
Pacific Ocean
U.S.A.
Lake Michigan
Georgian Bay
Lake Huron
TORONTO
KITCHENER-WATERLOO
LONDON
HAMILTON
ST CATHARINES
Lake Erie
Lake St Clair
WINDSOR


MAP 13.9
ISODEMOGRAPHIC MAP OF CANADA
SCALE IN THOUSANDS OF PEOPLE
0 50 100 200 300
DEMOGRAPHIC AREA SCALE
ITALIAN POPULATION BY CENSUS DIVISION, 1971
5.0–14.9%
1.0–4.9%
Less than 1.0%
(MAP BASED ON 1966 CENSUS DATA)
ST JOHN'S
Newfoundland
Atlantic Ocean
SYDNEY-GLACE BAY
CHARLOTTETOWN
HALIFAX
Nova Scotia
Gulf of St Lawrence
Magdalen Islands
P.E.I.
New-Brunswick
ST.JOHN
Bay of Fundy
FREDERICTON
U.S.A.
CHICOUTIMI-JONQUIÈRE
QUEBEC
Québec
MONTREAL
Hudson Bay
HULL
OTTAWA
Ontario
OSHAWA
SUDBURY
Lake Superior
Lake of the Woods
Lake Winnipeg
WINNIPEG
Manitoba
Saskatchewan
REGINA
SASKATOON
NWT
Alaska
Yukon
EDMONTON
CALGARY
Alberta
British Columbia
VANCOUVER
Strait of Georgia
VICTORIA
Pacific Ocean
U.S.A.
Lake Michigan
Georgian Bay
Lake Huron
TORONTO
Lake Ontario
KITCHENER-WATERLOO
HAMILTON
ST CATHARINES
LONDON
Lake St Clair
WINDSOR
Lake Erie


MAP 13.10
ISODEMOGRAPHIC MAP OF CANADA
SCALE IN THOUSANDS OF PEOPLE
0 50 100 200 300
DEMOGRAPHIC AREA SCALE
UKRAINIAN POPULATION BY CENSUS DIVISION, 1971
More than 15.0%
10-4.9%
5.0-14.9%
Less than 1.0%
(MAP BASED ON 1966 CENSUS DATA)
Atlantic Ocean
Pacific Ocean
Newfoundland
ST JOHN'S
Gulf of St. Lawrence
Magdalen Islands
SYDNEY-GLACE BAY
P.E.I.
CHARLOTTETOWN
HALIFAX
Nova Scotia
Bay of Fundy
ST. JOHN
New-Brunswick
FREDERICTON
U.S.A.
CHICOUTIMI-JONQUIERE
QUEBEC
Québec
MONTREAL
Hudson Bay
HULL
OTTAWA
Ontario
OSHAWA
Lake Ontario
TORONTO
ST CATHARINES
HAMILTON
KITCHENER-WATERLOO
LONDON
WINDSOR
Lake Erie
Lake St Clair
Lake Huron
Georgian Bay
Lake Michigan
SUDBURY
Lake Superior
Lake of the Woods
WINNIPEG
Lake Winnipeg
Manitoba
Saskatchewan
REGINA
SASKATOON
N.W.T.
Alberta
CALGARY
EDMONTON
Yukon
Alaska
British Columbia
VANCOUVER
Strait of Georgia
VICTORIA

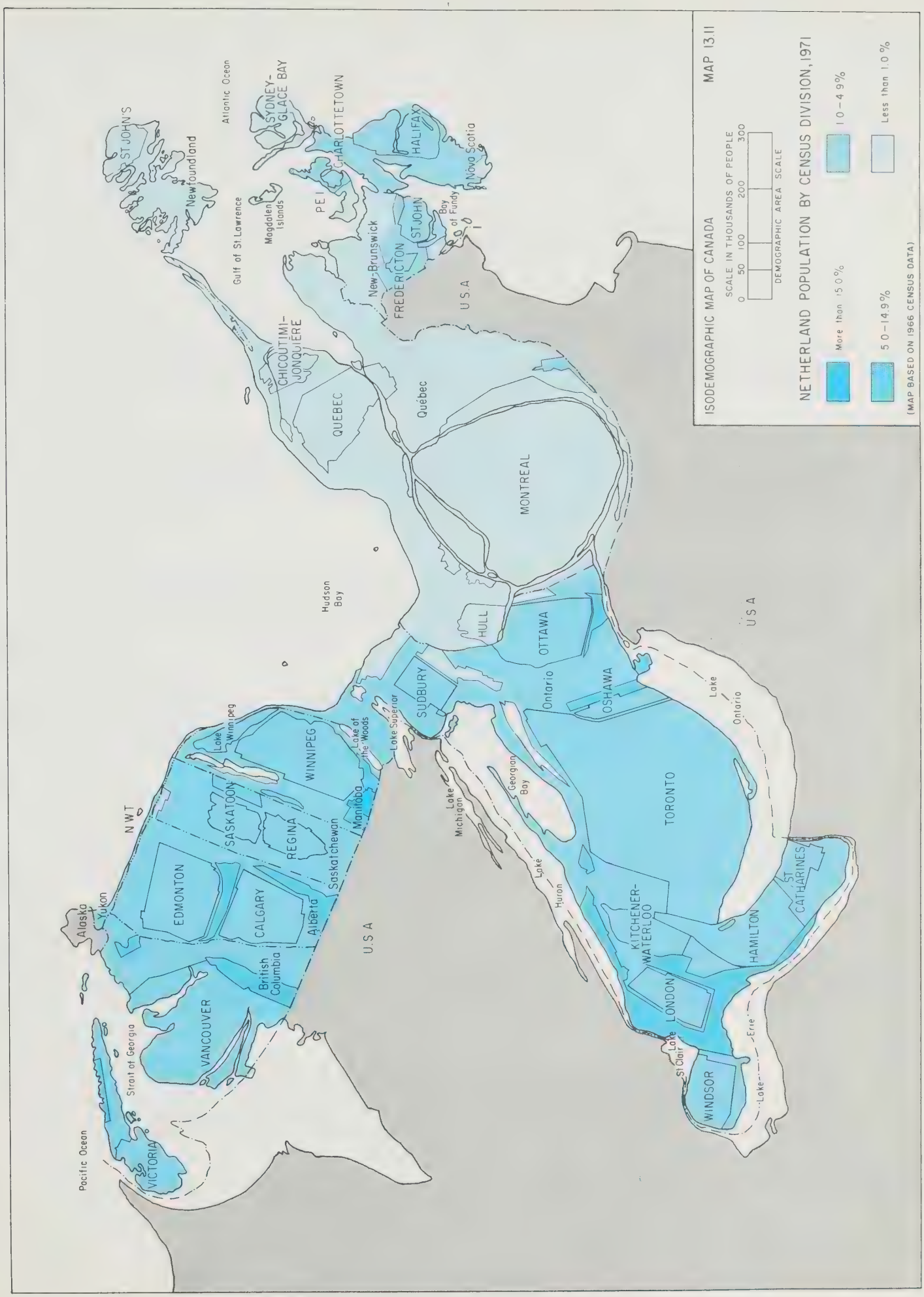

MAP 13.11
ISODEMOGRAPHIC MAP OF CANADA
SCALE IN THOUSANDS OF PEOPLE
0 50 100 200 300
DEMOGRAPHIC AREA SCALE
NETHERLAND POPULATION BY CENSUS DIVISION, 1971
More than 15.0%
5.0–14.9%
1.0–4.9%
Less than 1.0%
(MAP BASED ON 1966 CENSUS DATA)
ST JOHN'S
Newfoundland
Atlantic Ocean
SYDNEY-GLACE BAY
CHARLOTTETOWN
HALIFAX
Nova Scotia
Gulf of St Lawrence
Magdalen Islands
PEI
ST JOHN
Bay of Fundy
New Brunswick
FREDERICTON
U S A
CHICOUTIMI-JONQUIÈRE
QUEBEC
Québec
MONTREAL
Hudson Bay
HULL
OTTAWA
Ontario
OSHAWA
Lake Ontario
U S A
SUDBURY
Lake Superior
Lake of the Woods
WINNIPEG
Lake Winnipeg
Manitoba
Saskatchewan
SASKATOON
REGINA
Alberta
NWT
Alaska
Yukon
EDMONTON
CALGARY
British Columbia
VANCOUVER
Strait of Georgia
VICTORIA
Pacific Ocean
U.S A
Lake Michigan
Georgian Bay
Lake Huron
TORONTO
KITCHENER-WATERLOO
LONDON
HAMILTON
ST CATHARINES
Lake St Clair
WINDSOR
Lake Erie

Chart 13.12
BIRTHPLACE OF FOREIGN BORN POPULATION

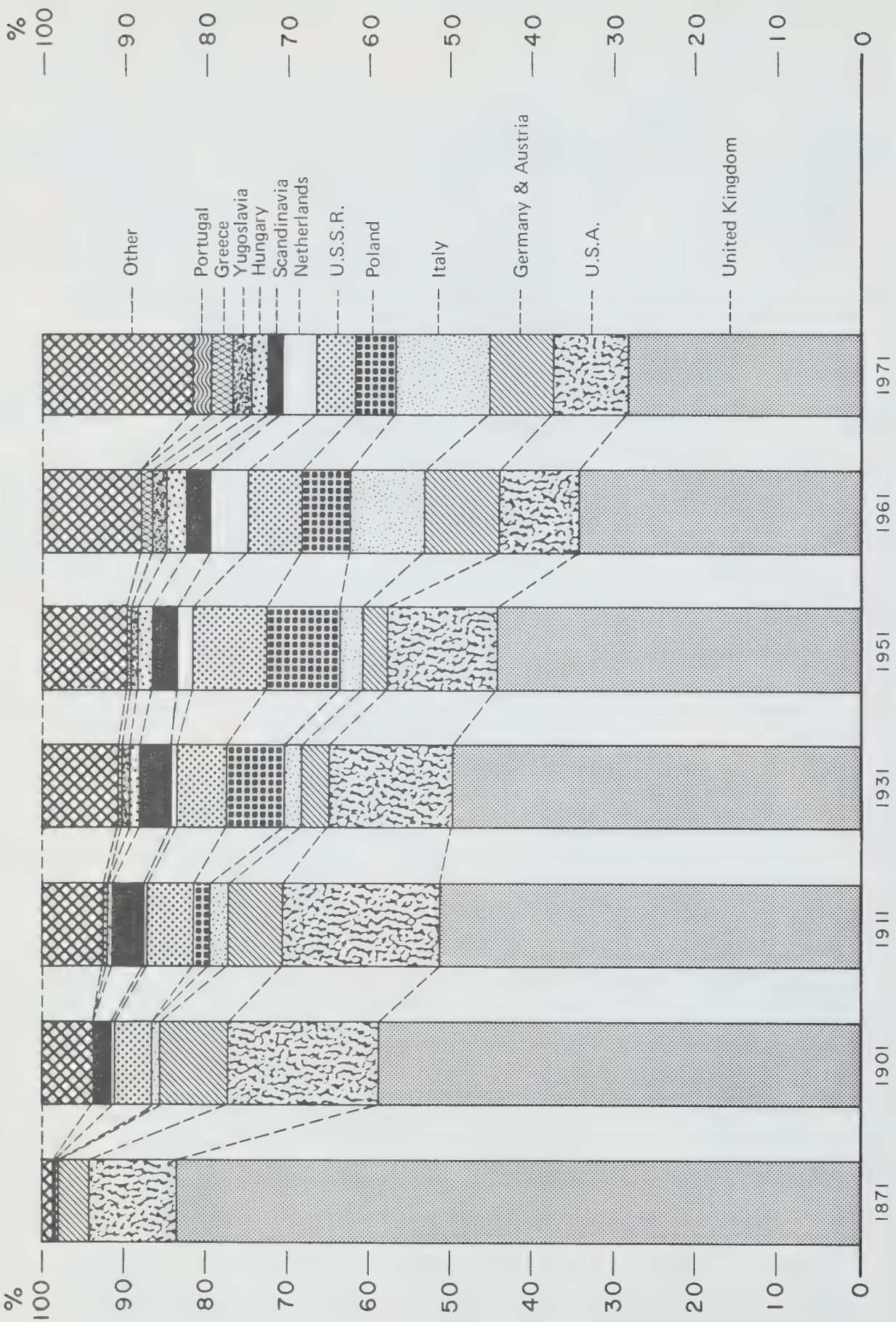


Table 13.13
POPULATION BY BIRTHPLACE, BY PROVINCE, 1971[p]

	New-found-land	Prince Edward Island	Nova Scotia	New Bruns-wick	Quebec	Ontario	Mani-toba	Saskat-chewan	Alberta	British Columbia	Yukon	Northwest Territories	Canada
	per cent												
Canada	98.3	96.7	95.3	96.2	92.2	77.8	84.7	88.1	82.7	77.3	85.9	93.7	84.7
Austria	--	--	--	--	0.1	0.2	0.4	0.4	0.3	0.3	--	--	0.2
China	--	--	0.1	0.1	0.1	0.2	0.2	0.2	0.4	0.9	--	0.3	0.3
Czechoslovakia	--	--	--	--	0.1	0.3	0.2	0.1	0.3	0.2	--	--	0.2
France	--	0.1	0.1	0.1	0.6	0.1	0.2	0.1	0.1	0.1	--	0.3	0.2
Germany	0.1	0.3	0.4	0.3	0.3	1.3	1.2	0.8	1.6	1.6	1.6	0.6	1.0
Greece	--	--	0.1	--	0.4	0.6	0.1	0.1	0.1	0.1	--	--	0.4
Hungary	--	--	--	--	0.2	0.5	0.3	0.3	0.4	0.3	0.5	--	0.3
Italy	--	--	0.1	0.1	1.5	3.3	0.5	0.1	0.7	1.0	0.5	0.3	1.8
Netherlands	--	0.3	0.2	0.1	0.1	1.0	0.5	0.2	1.1	1.0	0.5	0.3	0.6
Poland	--	--	0.1	0.1	0.4	1.0	1.7	0.9	1.3	0.6	0.5	0.3	0.7
Portugal	--	--	--	--	0.2	0.6	0.3	--	0.1	0.3	--	--	0.3
United Kingdom	0.7	1.0	1.8	1.3	1.1	6.7	4.2	3.1	4.3	8.3	3.8	2.0	4.3
United States	0.4	1.2	1.1	1.3	0.8	1.3	1.2	2.6	2.9	2.6	2.2	0.9	1.4
U.S.S.R.	--	--	0.1	--	0.3	0.9	2.1	1.5	1.2	0.8	--	--	0.7
Yugoslavia	--	--	--	--	0.1	0.7	0.2	0.1	0.3	0.4	0.5	0.3	0.4
Other	0.3	0.4	0.6	0.4	1.6	3.2	2.1	1.4	2.3	4.0	2.2	1.1	2.4
TOTALS	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number in thousands	522	112	789	635	6,028	7,703	988	926	1,628	2,185	18	35	21,568

Table 13.14
IMMIGRANTS BY ETHNIC ORIGIN

	1910-19	1920-29	1930-39	1940-49	1950-59	1960-66
	per cent					
Armenian	--	0.1	--	--	0.1	0.6
British	38.0	43.5	24.4	44.8	27.2	29.0
Bulgarian	0.8	0.1	0.2	--	--	--
Chinese	1.7	0.5	--	0.2	1.4	2.3
Czech and Slovak	0.1	2.0	3.4	1.0	0.5	0.2
East Indian and Pakistani	--	--	0.1	0.1	0.2	1.7
Estonian	--	--	--	1.2	0.6	0.1
Finnish	0.6	2.2	1.3	0.1	1.0	0.5
French	0.7	0.4	0.6	1.3	2.1	3.0
German and Austrian	2.1	5.0	6.1	2.3	16.0	7.5
Greek	0.3	0.3	0.4	0.5	2.2	4.8
Hungarian	0.3	2.1	2.8	0.7	3.0	0.9
Italian	3.6	2.2	1.6	2.7	15.4	19.1
Japanese	0.4	0.3	0.5	--	0.1	0.2
Jewish	1.8	3.8	3.4	4.3	2.1	2.0
Latvian	--	--	--	1.5	0.5	0.1
Lithuanian	--	0.4	0.4	1.8	0.3	0.1
Maltese	0.1	--	--	0.2	0.5	0.6
Netherlander and Belgian	0.9	1.9	1.3	6.3	9.0	3.2
Polish	2.0	3.7	3.6	6.9	2.9	2.3
Portuguese	--	0.1	--	--	1.1	4.9
Roumanian	0.2	0.5	0.3	0.2	0.2	0.1
Russian and Ukrainian	6.7	5.2	7.1	5.0	1.5	0.3
Scandinavian[1]	1.5	4.6	2.2	0.9	2.5	1.4
Spanish	0.1	--	--	0.1	0.3	1.2
Swiss	0.1	0.4	0.3	0.2	0.6	0.8
Yugoslavic	0.4	1.5	1.6	1.1	1.8	2.6
"From the U.S.A."	37.3	18.9	38.2	16.4	6.3	5.8
Other	0.3	0.3	0.2	0.2	0.6	4.7
TOTALS	100.0	100.0	100.0	100.0	100.0	100.0
Number of immigrants	1,860,271	1,264,220	252,044	428,733	1,544,642	797,644

1) Includes Danish, Icelandic, Norwegian and Swedish.

Table 13.15
IMMIGRANTS BY PLACE OF FORMER RESIDENCE

	1940-49		1950-59		1960-69	
	Number	Per cent	Number	Per cent	Number	Per cent
Africa	916	0.2	9,676	0.6	30,363	2.2
Australia and New Zealand	2,466	0.6	15,980	1.0	30,630	2.2
Britain[1]	168,687	39.3	411,532	26.6	336,374	24.6
Central and South America	2,060	0.5	15,745	1.0	26,345	1.9
China, Hong Kong and Taiwan	2,152	0.5	23,569	1.5	38,197	2.8
Czechoslovakia	5,303	1.2	5,802	0.4	3,212	0.2
France	3,599	0.8	40,217	2.6	53,011	3.9
Germany and Austria	7,881	1.8	258,421	16.8	102,687	7.5
Greece	2,084	0.5	33,213	2.2	59,655	4.4
Hungary	3,610	0.8	45,517	2.9	4,742	0.3
India, Pakistan and Sri Lanka	962	0.2	2,934	0.2	25,241	1.8
Italy	11,174	2.6	228,070	14.8	200,442	14.7
Japan	273	0.1	1,125	0.1	3,835	0.3
Netherlands	18,920	4.4	123,174	8.0	29,055	2.1
Philippines	--	--	--	--	13,480	1.0
Poland	53,148	12.4	34,282	2.2	17,160	1.3
Portugal	125	--	14,149	0.9	58,106	4.3
Scandinavia[2]	4,215	1.0	42,630	2.8	16,528	1.2
U.S.S.R.	7,383	1.7	4,749	0.3	1,383	0.1
United States	70,201	16.5	97,811	6.3	153,609	11.3
West Indies	2,936	0.7	10,682	0.7	46,030	3.4
Yugoslavia	5,742	1.3	12,743	0.8	18,097	1.3
Other	54,896	12.9	112,621	7.3	97,843	7.2
TOTALS	428,733	100.0	1,544,642	100.0	1,366,025	100.0

See footnote(s) at end of table.

Table 13.15
IMMIGRANTS BY PLACE OF FORMER RESIDENCE – Concluded

	1970		1971		1972	
	Number	Per cent	Number	Per cent	Number	Per cent
Africa	2,863	1.9	2,841	2.3	8,308	6.8
Australia and New Zealand	4,385	3.0	2,902	2.4	2,143	1.7
Britain[1]	26,497	17.9	15,451	12.8	18,197	14.8
Central and South America	5,641	3.8	5,670	4.7	6,521	5.3
China, Hong Kong and Taiwan	5,377	3.6	5,817	4.8	7,181	5.8
Czechoslovakia	763	0.5	283	0.2	154	0.1
France	4,410	3.0	2,966	2.4	2,742	2.2
Germany and Austria	4,938	3.4	2,682	2.2	2,390	1.9
Greece	6,327	4.3	4,769	3.9	4,016	3.3
Hungary	461	0.3	373	0.3	322	0.3
India, Pakistan and Sri Lanka	6,847	4.6	6,499	5.3	6,479	5.3
Italy	8,533	5.8	5,790	4.8	4,608	3.8
Japan	797	0.5	883	0.7	718	0.6
Netherlands	1,916	1.3	1,301	1.1	1,471	1.2
Philippines	3,240	2.2	4,180	3.4	3,946	3.2
Poland	723	0.5	1,132	0.9	1,321	1.1
Portugal	7,902	5.4	9,157	7.5	8,737	7.1
Scandinavia[2]	1,269	0.9	903	0.7	966	0.8
U.S.S.R.	131	0.1	155	0.1	315	0.3
United States	24,424	16.5	24,366	20.0	22,618	18.3
West Indies	12,660	8.6	11,017	9.0	8,474	6.9
Yugoslavia	5,672	3.8	2,997	2.5	2,047	1.7
Other	11,937	8.1	9,766	8.0	9,186	7.5
TOTALS	147,713	100.0	121,900	100.0	122,860	100.0

1) Includes England, Northern Ireland, Scotland and Wales.
2) Includes Norway, Sweden, Denmark and Iceland.

Chart 13.16
IMMIGRANTS BY REGION OF FORMER RESIDENCE

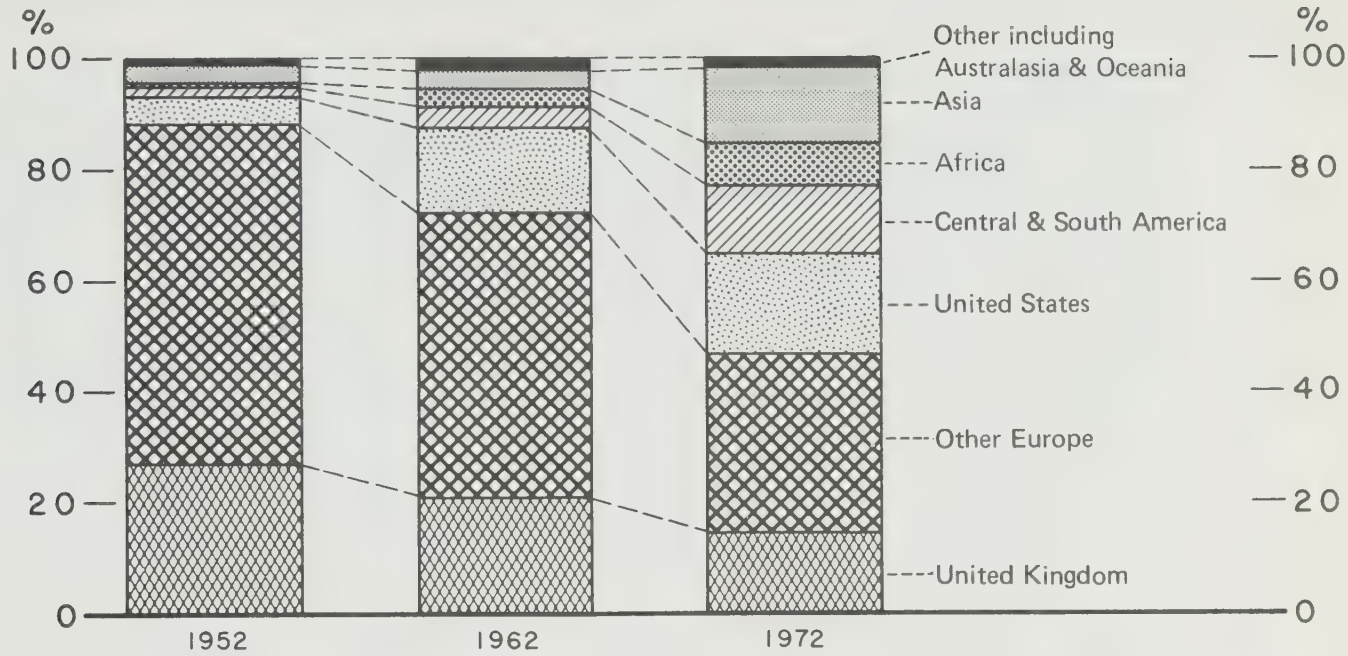


Table 13.17
IMMIGRATION IN THE CONTEXT OF CANADIAN POPULATION GROWTH

	Population at end of decade[1]	Growth in population	Immigration	Emigration[2]	Gross immigration as a percentage of total population[3]	IMMIGRATION AS A PERCENTAGE OF POPULATION GROWTH	
						Gross	Net
	thousands					per cent	
1851-61	3,230	793	209	85	6.5	26.4	15.5
1861-71	3,689	459	183	379	5.1	40.7	- 41.7
1871-81	4,325	636	353	440	8.2	55.5	- 13.7
1881-91	4,833	508	903	1,109	23.0	177.8	- 40.6
1891-01	5,371	538	326	506	9.4	60.6	- 33.4
1901-11	7,207	1,836	1,759	1,043	24.4	95.8	38.0
1911-21	8,788	1,581	1,612	1,381	18.3	101.9	14.6
1921-31	10,377	1,589	1,203	974	11.6	75.7	14.4
1931-41	11,507	1,130	150	242	1.3	13.2	- 8.1
1941-51	14,009	2,502	548	379	3.9	21.9	6.7
1951-61	18,238	4,229	1,543	462	8.4	36.4	25.5
1961-71	21,568	3,330	1,429	702	6.8	43.8	22.8

1) As at June.
2) Estimated.
3) Calculated at end of decade.
Note: From 1941, figures for Newfoundland are included for population and population growth but not for immigration and emigration.

Chart 13.18
IMMIGRATION AS A PERCENTAGE OF POPULATION GROWTH

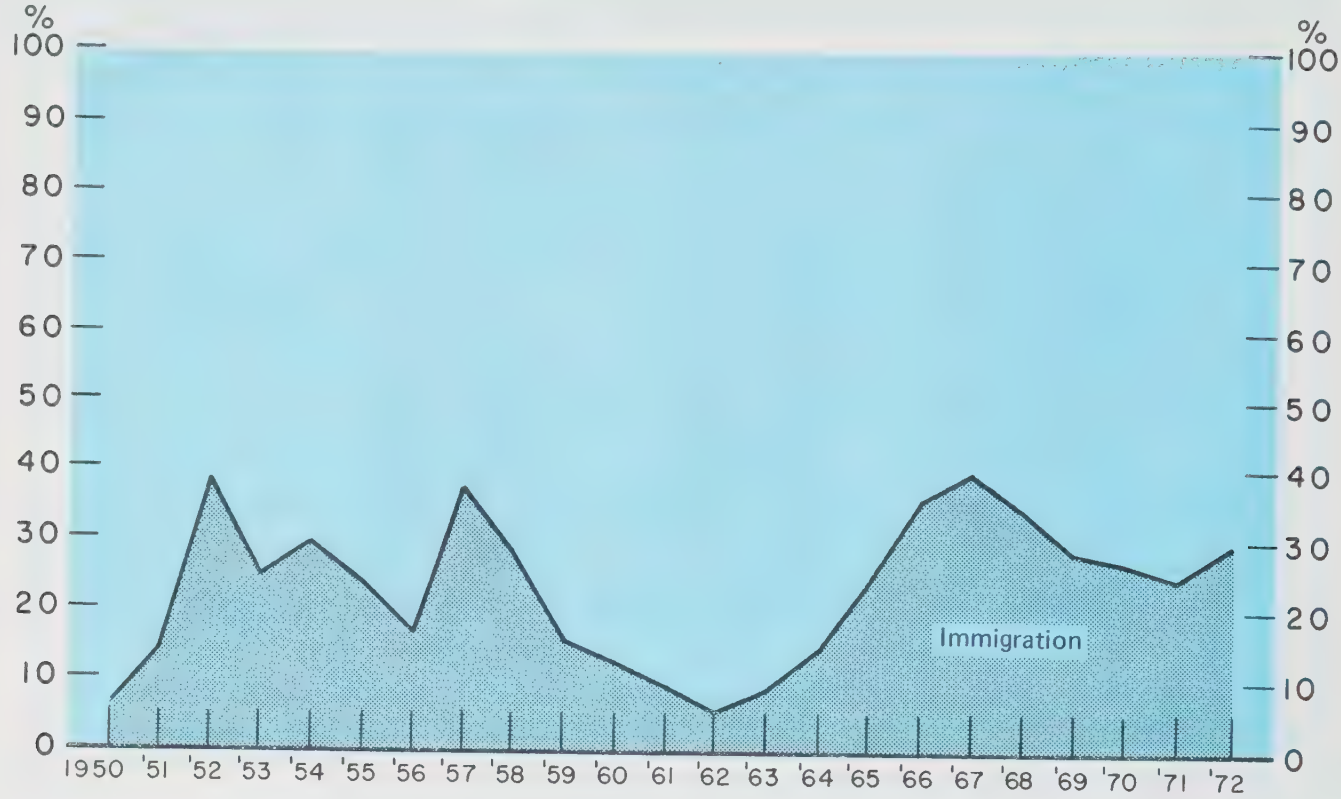


Chart 13.19
IMMIGRANTS BY INTENDED OCCUPATION, 1951 AND 1971

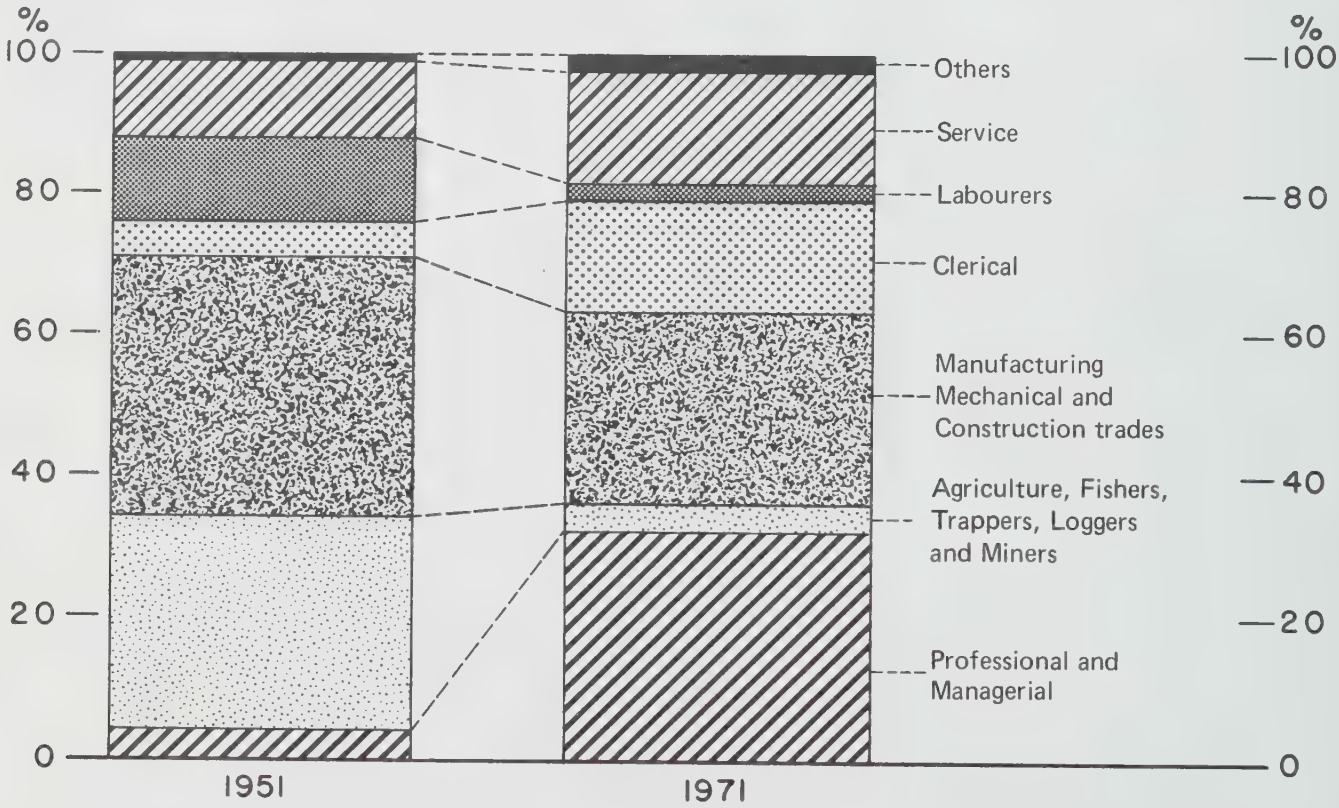
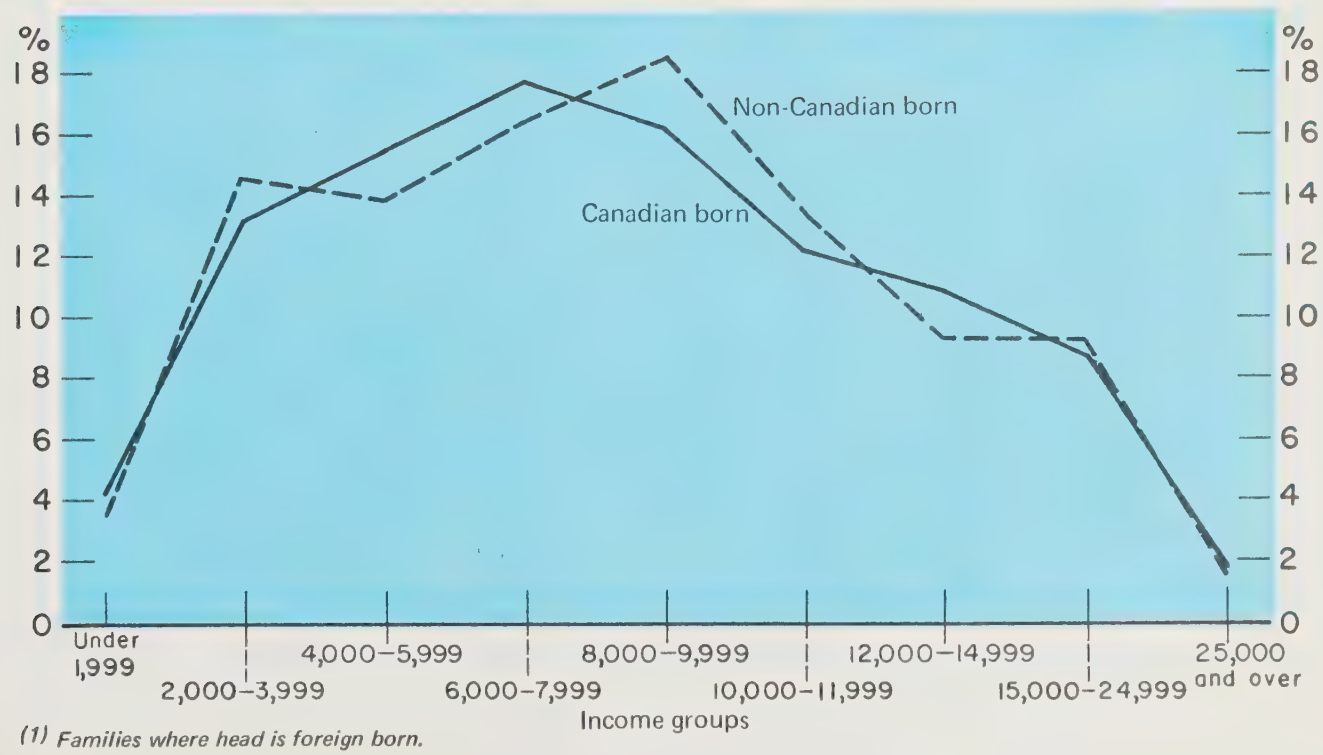


Table 13.20
INCOME GROUP OF FAMILIES BY YEAR OF IMMIGRATION OF HEAD, 1969

	CANADIAN BORN	NON-CANADIAN BORN		
		Immigrated before 1946	Immigrated 1946-1969	Total
	per cent			
Under $1,000	1.3	1.6	0.3	0.8
$ 1,000 - $ 1,999	2.9	5.2	1.1	2.6
2,000 - 2,999	6.8	14.9	2.3	6.9
3,000 - 3,999	6.4	13.3	4.3	7.6
4,000 - 4,999	7.4	8.2	5.7	6.6
5,000 - 5,999	8.0	7.1	7.4	7.3
6,000 - 6,999	8.5	7.0	7.3	7.2
7,000 - 7,999	9.2	7.3	10.1	9.1
8,000 - 8,999	8.7	6.8	11.4	9.7
9,000 - 9,999	7.4	4.4	11.2	8.7
10,000 - 11,999	12.1	10.3	15.2	13.4
12,000 - 14,999	10.8	5.6	11.3	9.2
15,000 - 24,999	8.7	6.5	10.8	9.2
25,000 and over	1.8	1.6	1.8	1.7
TOTALS	100.0	100.0	100.0	100.0
Average annual income $	8,917	7,330	9,919	8,969

Chart 13.21
CANADIAN AND FOREIGN BORN FAMILIES(1) BY INCOME GROUP, 1969



(1) *Families where head is foreign born.*

Table 13.22
AGE BY ETHNIC GROUP, 1971

	YEARS						Total	Total persons
	0-4	5-9	10-14	15-24	25-44	45 +		
	per cent							number
British	8	10	10	19	23	30	100	9,624,120
French	8	11	12	20	26	23	100	6,180,120
German	8	10	10	17	29	26	100	1,317,200
Italian	11	12	10	16	31	20	100	730,820
Ukrainian	7	9	9	17	25	33	100	580,655
Netherlands	9	12	13	18	26	22	100	425,945
Indians and Inuit	16	16	13	20	21	14	100	312,765
Scandinavian	7	9	10	18	26	30	100	384,795
All other	9	9	9	17	29	27	100	2,011,890
Canadian average	8	10	11	19	25	27	100	21,568,310

Table 13.23
EDUCATIONAL ATTAINMENT BY MOTHER TONGUE, 1971[1]

	Elementary	Secondary	Post-secondary	University
	per cent			
English	26.2	42.5	17.5	13.8
French	49.5	29.0	12.8	8.7
German	47.0	25.7	18.7	8.6
Indians and Inuit	79.5	15.0	3.8	1.7
Italian	74.0	16.0	5.7	4.3
Dutch	37.6	30.7	21.6	10.1
Scandinavian	45.7	29.8	16.2	8.3
Ukrainian	54.8	27.3	9.9	8.0
All other	48.0	25.7	11.4	14.9
TOTALS	36.8	36.0	15.4	11.8

1) Persons 20 years of age and over.

Table 13.24
ETHNIC GROUP BY OCCUPATIONAL GROUP, 1971

	British Isles	French	German	Hungarian	Italian	Jewish	Netherlands
				per cent			
Managerial, administrative and related	5.2	3.7	3.6	2.8	1.8	10.7	3.5
Natural sciences, engineering and mathematics	3.1	1.8	2.7	4.7	1.3	2.6	3.3
Social sciences and related	1.0	0.9	0.6	0.6	0.3	3.3	0.7
Religion	0.3	0.4	0.3	0.2	0.1	0.2	0.4
Teaching and related	4.3	4.5	3.6	3.1	1.6	5.2	3.2
Medicine and related	4.1	3.6	3.5	3.4	1.1	4.9	3.6
Art, literature, performing arts and related	1.0	0.9	0.7	1.3	0.6	2.1	0.8
Clerical and related	18.5	14.7	13.4	11.5	9.7	18.8	11.9
Sales	10.4	8.7	8.7	6.7	6.7	24.2	8.8
Service	10.6	11.2	10.6	11.9	13.0	4.9	10.6
Farming, horticulture and animal-husbandry	5.4	4.4	12.5	9.4	1.8	0.4	14.2
Fishing, hunting, trapping and related	0.4	0.2	0.1	- -	- -	- -	0.2
Forestry and logging	0.6	1.3	0.5	0.4	0.2	- -	0.4
Mining, quarrying including oil and gas field	0.6	0.9	0.7	0.7	0.4	- -	0.4
Processing	3.1	4.9	3.7	4.2	6.2	1.4	3.8
Machining	2.4	2.8	3.4	5.8	5.2	0.6	3.1
Production, fabrication, assembly and repair	5.9	8.2	7.6	9.7	15.6	6.4	6.9
Construction trades	5.6	6.9	7.9	7.2	15.3	1.7	8.1
Transport equipment operation	4.2	4.5	3.5	2.5	2.6	1.7	3.5
Material handling and related	2.4	2.2	2.3	2.4	3.4	0.8	2.3
Other crafts and equipment operation	1.4	1.3	1.1	1.0	0.7	0.6	1.1
Not stated and not elsewhere classified	9.5	12.0	9.0	10.5	12.4	9.5	9.2
TOTALS	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 13.24
ETHNIC GROUP BY OCCUPATIONAL GROUP, 1971 – Concluded

	Polish	Russian	Scandi-navian	Ukrai-nian	Asiatic	Native Indian	Other	Total
				per cent				
Managerial, administrative and related	2.8	3.0	3.8	2.9	3.1	1.5	2.6	4.3
Natural sciences, engineering and mathematics	3.2	3.1	3.0	2.5	7.1	1.1	3.3	2.7
Social sciences and related	0.6	0.6	0.7	0.6	1.0	1.3	0.7	0.9
Religion	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.3
Teaching and related	3.0	3.5	4.0	3.5	4.7	1.6	3.0	4.1
Medicine and related	3.2	3.2	3.7	3.0	8.5	2.2	3.8	3.8
Art, literature, performing arts and related	0.7	1.1	0.8	0.7	0.9	1.1	1.0	0.9
Clerical and related	14.2	13.7	13.7	14.8	14.7	6.9	12.2	15.9
Sales	7.2	7.7	9.1	8.4	9.1	2.7	6.3	9.5
Service	13.1	11.6	10.7	12.9	16.9	12.4	15.7	11.2
Farming, horticulture and animal-husbandary	8.0	10.4	12.6	11.6	2.2	5.9	5.0	5.9
Fishing, hunting, trapping and related	- -	0.1	0.5	0.1	0.3	2.6	0.2	0.3
Forestry and logging	0.5	1.0	1.2	0.4	0.2	6.2	0.6	0.8
Mining, quarrying including oil and gas field	1.1	0.8	1.1	0.9	0.2	1.0	0.7	0.7
Processing	4.8	4.6	3.0	3.8	3.9	4.1	4.6	3.9
Machining	4.1	2.7	2.0	2.7	2.2	2.2	4.4	2.8
Production, fabrication, assembly and repair	8.9	6.4	5.2	6.9	8.0	4.4	11.0	7.4
Construction trades	6.7	7.4	8.0	6.5	2.0	9.8	7.4	6.5
Transport equipment operation	2.8	3.9	4.0	3.7	1.4	3.6	2.5	3.9
Material handling and related	2.9	3.0	2.6	2.8	2.0	3.1	2.5	2.4
Other crafts and equipment operation	1.0	1.1	1.2	1.1	0.8	0.7	1.0	1.3
Not stated and not elsewhere classified	11.1	10.9	8.9	10.1	10.7	25.5	11.4	10.5
TOTALS	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 13.25
POPULATION BY RELIGION

	1871	1901	1911	1921	1931	1951	1961	1971
				per cent				
Anglican	14.1	12.8	14.5	16.1	15.8	14.5	13.2	11.8
Baptist	6.8	6.0	5.3	4.8	4.3	3.7	3.3	3.1
Greek Orthodox[1]	- -	0.3	1.2	1.9	1.0	1.2	1.3	1.5
Jehovah's Witnesses	- -	- -	- -	0.1	0.1	0.2	0.4	0.8
Jewish	- -	0.3	1.0	1.4	1.5	1.4	1.4	1.3
Lutheran	1.1	1.8	3.2	3.3	3.8	3.1	3.6	3.3
Mennonite[2]	- -	0.6	0.6	0.7	0.9	0.9	0.8	0.8
Pentecostal	- -	- -	- -	0.1	0.3	0.7	0.8	1.0
Presbyterian	16.2	15.8	15.6	16.0	8.4	5.5	4.5	4.0
Roman Catholic	42.9	41.7	39.5	38.6	39.5	42.7	45.8	46.3
Salvation Army	- -	0.2	0.3	0.3	0.3	0.5	0.5	0.6
Ukrainian Catholic	- -	- -	- -	- -	1.8	2.8	1.0	1.1
United Church[3]	17.0	17.9	15.8	13.9	19.8	20.7	20.3	17.5
Other	1.7	2.2	2.4	2.5	2.3	1.7	3.1	2.6
No religion	0.2	0.4	0.6	0.3	0.2	0.4	4	4.3
TOTALS	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Population in thousands	3,689	5,371	7,207	8,788	10,377	14,009	18,238	21,568

1) Includes those churches which observe the Greek Orthodox Rite such as Russian Orthodox, Ukrainian and Syrian Orthodox.
2) Includes Hutterite.
3) Includes Evangelican United Brethren.
4) Included with "Other".

Chart 13.26
POPULATION BY RELIGION

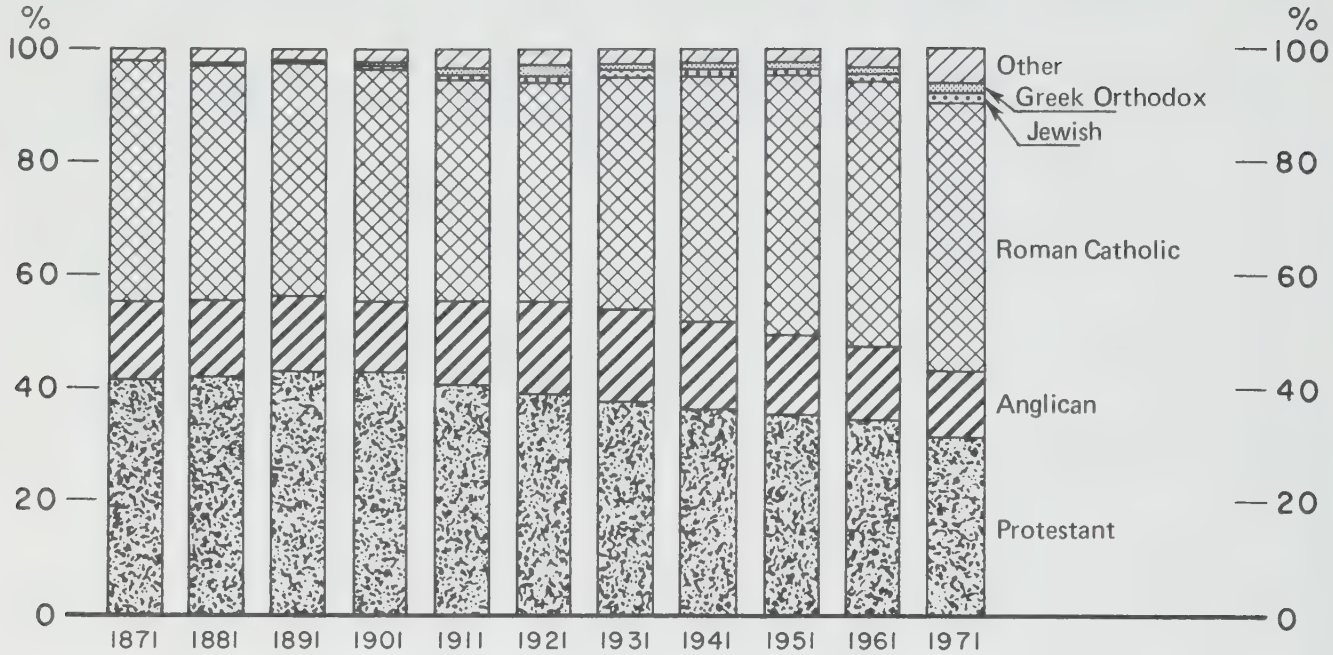


Table 13.27
CULTURAL ORGANIZATIONS[1]

	Number of organizations		Number of organizations		Number of organizations
African	8	French	7	Norwegian	8
Arab	13	German	43	Pakistani	3
Armenian	15	Greek	31	Philippine	5
Austrian	4	Haitian	2	Polish	45
Baltic	5	Hungarian	20	Portuguese	12
Belgian	3	Icelandic	6	Romanian	7
Black	11	Inter-Ethnic	19	Russian	10
Bulgarian	2	Italian	66	Scandinavian	3
Byelorussian	4	Japanese	21	Serbian	10
Caribbean	6	Jewish	26	Slovak	11
Chinese	36	Korean	6	Slovenian	8
Croatian	14	Latin American	2	Spanish	13
Czech	12	Latvian	17	Swedish	7
Danish	8	Lebanese-Syrian	4	Swiss	8
Doukhobor	8	Lithuanian	21	Turkish	2
Dutch	20	Macedonian	4	Ukrainian	42
East Indian	15	Malaysian	1	West Indian	3
Estonian	24	Maltese	3	Yugoslav	3
Finnish	18	Moslem	5		

1) In some cases only the head office of an organization is counted even though branches may exist in many centres. Also, if an organization does not advise the Secretary of State's office of its existence it will not be counted.

Table 13.28
FOREIGN LANGUAGE MEDIA

	Newspapers and periodicals	Radio broadcast time per week
	number	hours and minutes
Arabic	2	2:27
Armenian	–	1:30
Belgian	–	:55
Bulgarian	–	2:05
Byelorussian	1	–
Chinese	4	9:15
Croatian, Serbian, Slovenian and Yugoslavian	7	23:20
Czech and Slovak	4	1:54
Danish	1	:59
Dutch	7	15:30
Estonian	2	:57
Finnish	2	4:24
German	10	55:31
Greek	6	65:33
Hindi	–	10:22
Hungarian	8	5:38
Icelandic	1	–
Italian	19	156:05
Japanese	2	1:00
Jewish	4	–
Korean	–	:30
Latvian	1	–
Lithuanian	3	2:00
Macedonian	–	4:30
Maltese	–	:30
Norwegian	1	1:30
Pakistani	1	1:35
Polish	4	13:45
Portuguese	6	23:27
Russian	–	5:40
Spanish	3	1:00
Swedish	2	:58
Ukrainian	22	42:52

Table 13.29
TYPES OF RESTAURANTS IN SELECTED CITIES, 1973

	Montreal	Ottawa	Toronto	Edmonton	Vancouver
			per cent		
General[1]	51.8	33.3	36.9	40.5	32.0
Italian	15.1	15.7	13.6	11.8	13.2
Chinese	5.7	15.3	8.5	11.8	11.2
American[2]	12.3	14.4	17.5	23.1	23.3
French	1.5	10.3	1.5	...	1.0
Steak	6.5	5.7	14.7	6.6	11.2
Delicatessen[3]	4.6	2.1	2.9	0.8	2.4
Arab	0.1	1.0	0.3	...	...
Fish and chips	0.4	0.6	0.7	1.3	2.0
Indian	0.7	0.4	1.0	0.5	0.7
Japanese	0.4	0.4	0.5	0.8	1.0
Spanish	0.4	0.2	0.3	0.5	0.7
Hungarian	0.4	0.2	1.3	1.8	1.1
African	...	0.2	0.1	...	...
Natural food	0.1	0.2	0.2	0.5	0.2
TOTALS	100.0	100.0	100.0	100.0	100.0

1) Includes restaurants with general and mixed menus, lunch counters and coffee shops, and unidentifiable.
2) Includes all drive-ins such as burger places, Kentucky Fried Chicken and dairy bars.
3) Includes German and Austrian restaurants.

Criminal Justice

14

All complex societies have devised systems to adjudicate between man and man, and state and man. To maintain these systems of justice at high levels of quality and effectiveness, both governments and citizens place heavy reliance on information about their use and development. As a nation, we want to know how law-abiding we are and how fair our legal system is. As individuals we want to know how safe we are from all kinds of criminal hurt and state harassment.

Informed decisions on the administration of justice require statistical information. Court statistics are one of the oldest statistical series in Canada but there are still important areas of justice for which statistical information is unavailable.

The Utopian ideal would be to have no crime at all, and no injustices by man to man, or between state and man. In practice, our best hope is to achieve a democratically chosen "acceptable" level of crime, balanced by a similarly chosen risk of state injustice (wrong arrest, unfair punishment, restraint, and surveillance), acceptable only to achieve the first goal.[1] To know whether these goals are being reached, and to act on that knowledge, we must have information on what goes into the justice system, and what it all produces. The inputs are basically labour, goods and money. Conceptually, at least, they are easy to measure. The "output" would be mostly non-economic results such as "security from physical attack" or "protection from unjust arrest", and these are far more difficult to quantify. All we have at present are negative measures – counts of dishonesty and injustice. And even these are sparse. We know the number and kind of crimes reported to the police, but nothing of the crimes that go unreported. We have information on how reported crime rates vary by region and by size of community, but little information as to who the victims are. Accepting these limitations, what data do we want to have about the justice system?

An important measure of a police force's functioning would be how successful it is at solving crimes brought to its attention (i.e. its clearance rate), balanced against a measure of the frequency of unjustified arrests. Statistics are available on clearance rates for most police forces in Canada, but the way crimes are grouped makes comparison difficult. Within a given criminal code description, the statistics for each police force include a variety of criminal acts – some easy to solve, others in practice soluble only by chance. A burglar caught in the act by a patrolman is given equal weight in the statistics with a burglar apprehended only after a long investigation. Thus it is difficult to form any measure of the effectiveness of the force without knowing the relative difficulty of its work.

Would the rate at which courts acquit those arraigned by each police force be a useful measure of police "fairness"? Perhaps. But there are no such data. In any event, such a measure would reflect the acts of two separate institutions, making any interpretation ambiguous.

Some aspects of how courts themselves are performing might be assessed by such measures as the time between arrest and trial, the extent to which accused persons have access to legal counsel, and the degree to which they are freed on bail before trial. But society's concerns are more basic. Were the judgments correct? Were the sentences appropriate? Such questions can be answered statistically only with great difficulty, if at all.

We do not have national data on how long accused persons wait for trial, whether they are released on bail or kept locked up, or on how these two factors affect the accused's chances in court. Similarly, we do not collect information on whether or not the accused had counsel.[2] We do, however, have time series relating the type of trial to its outcome, by type of offence.

Some indication of the "correctness" of court judgments might be gained by knowing how often they were overturned by higher courts. This information is not now publicly available, although there is some information on how consistently similar offences receive similar sentences.

To judge the effectiveness of correction methods, detailed information on the rate at which offenders are rehabilitated is required. Negatively, we want to know how many offenders commit another offence within a specified time after their release (that is, the rate of recidivism). Unfortunately, most prison statistics are simple gate counts of entries and discharges, with a few personal characteristics also tabulated. No real measure of recidivism is attempted, and there is no information available on a national level on rehabilitation.

A problem cutting across the justice system is that of possible systematic unfairness. We know that a disproportionate number of offenders are young people and that people in prisons have lower than average levels of education. It also appears likely from the fragmentary data available that Indians and Métis make up a disproportionate percentage of prison populations. Without better social data on offenders, linked to their legal record, it is impossible to begin measuring whether the legal system discriminates overtly or otherwise against certain people.

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[1] Robert Evans, Jr., *Policy Indicators for Canadian Public Order and Safety*, Economic Council of Canada, Special Study No. 23, Ottawa, 1973.

[2] A national integrated court reporting program that will collect data on these and other factors for all trials is being tested. The program has been operating in Quebec since 1968 and Alberta since 1970.

Although in the near future the new integrated court reporting system will greatly improve the information available, such data as exist now do not allow us to follow criminals from arrest to trial to incarceration and back into the outside world. Yet such an approach is needed for effective analysis of the justice field.

DATA

Clearance of crimes and laying of charges are both measures of the results of police activities. The rate of clearance varies with the crime. Acts such as public drunkenness "turn themselves in", so the clearance rate is high. Stealthy acts such as burglary are generally discovered after the fact, so finding the culprit is difficult and the clearance rate is low.

In the police statistics (on crimes committed), when several offences occur in one incident, only the most serious offence is counted. In reporting offences against the person, one offence is reported for each victim. In offences against property, one offence is reported for each distinct or separate act.

Reported crime statistics are also affected by the timing of events. For example, a crime can be committed in one year and solved in another. If, for instance, a rash of car thefts in 1973 is cleared up by the arrest of a ring of thieves in 1974, the rate of reported thefts could decline from 1973 to 1974, while the rate of charges being laid for car theft could go up.

When a suspect is charged, the crown prosecutor may decide that the offence was serious enough to proceed by indictment, or decide that it was less serious, and proceed summarily (see Concepts and Definitions). Data on indictable offences show the type of trial that accused persons underwent, the number of persons convicted, and the sentences received. Similar information is presented for persons convicted for summary offences. (Since all summary offences are handled in magistrates' courts, no data are given on type of trial.)

Since 1949, Statistics Canada has collected court statistics on the basis of persons rather than convictions. Thus a man convicted of eight counts of burglary would result in one being added to the count of persons convicted of burglary.

The treatment of juvenile offenders makes it difficult to relate the patterns of juvenile and adult crime. A large number of delinquencies are dealt with informally, outside the courts. Instead of being charged and tried, a juvenile may be turned over to his parents for correction, seen privately by a judge in his chambers, or counselled by a social worker. Until recently, there have been no statistics on the number of delinquency cases dealt with informally. Juveniles can be charged with offences (such as "immorality" under the Juvenile Delinquents Act) that do not apply to adults. Similarly, the types of sentences available to a juvenile court judge are somewhat different from those used in adult court.

Data are presented to show the number of juveniles found delinquent, and the court's disposition of them as well as the number of offenders, both juvenile and adult, incarcerated in the various types of correctional institutions. (These figures result from a census taken in each institution on the first day of each year.)

CONCEPTS AND DEFINITIONS

INDICTABLE AND SUMMARY OFFENCES

An indictable offence is one regarded as an offence not only against a person but against the whole state. These offences are designated by statute, which also defines maximum punishment in each case; they demand a more formal hearing than ordinary offences.

Ordinary (summary) offences are those not expressly made indictable; they are, as a rule, minor. All provincial statutes and municipal by-laws are in this category (such as offences against traffic and liquor laws, and breaches of the peace). Maximum sentence for a summary offence is $500 fine and/or six months' imprisonment.

Indictable offences are usually classified for statistical purposes as:

(1) **Criminal Code offences**, such as
- (i) against the person (abduction, kidnapping, assaults, criminal negligence, incest, rape, libel, murder)
- (ii) against property, with violence (breaking and entering, robbery, extortion)
- (iii) against property, without violence (fraud, embezzlement, theft, receiving stolen goods)
- (iv) malicious offences against property (arson, other malicious damages to property)
- (v) forgery and offences against currency

(2) **Federal Statutes**, such as offences against the Customs Act, Excise Act, Food and Drug Act, Narcotic Control Act, Post Office Act

Summary offences are classified as
- (a) Criminal Code (e.g. common assault, drunk and disorderly conduct, impaired driving, vagrancy)
- (b) Federal Statutes (Customs Act, Juvenile Delinquents Act, Unemployment Insurance Act, Lord's Day Act)
- (c) Provincial Statutes (game and fisheries offences, traffic offences, liquor control)
- (d) Municipal By-Laws (intoxication, traffic offences)

Many offences can lead to either a summary or an indictable charge. The choice is up to the crown prosecutor; normally, he chooses the less serious charge.

CLEARED, CHARGED

When a crime is "solved" – that is, when a charge has been laid – the offence is said to be cleared.[3] Several persons may be charged with one crime, or one person may be charged with several crimes. Thus, through chance and police effort, a certain percentage of all reported crimes are **cleared**, and a number of people are **charged**, but the numbers of reported offences and of offenders may not correspond.

PERSONS CONVICTED

While individuals may be charged with more than one offence, for statistical purposes only one offence is tabulated for each person convicted. This offence is selected according to the following criteria:

(1) If the person was tried on several charges, the offence selected is that for which proceedings were carried to the furthest stage – conviction and sentence.

(2) If there were several convictions, the offence selected is that for which the heaviest punishment was awarded.

(3) If the final result of proceedings on two or more charges was the same, the offence selected is the more serious one, as measured by the maximum penalty allowed by the law.

(4) If a person was prosecuted for one offence and convicted of another, for example, charged with non-capital murder and convicted of manslaughter, the offence selected is the one of which the person was convicted.

TYPES OF TRIAL

The Criminal Code specifies the type of trial for certain offences. A judge and jury trial is mandatory for serious indictable offences such as murder, treason, rape, and manslaughter. For a number of less serious indictable offences, the Criminal Code gives a magistrate absolute jurisdiction. This group includes such acts as theft under $50, obstructing a police officer, keeping a bawdy house, and common assault. For all indictable offences not otherwise specified, the type of trial is at the option of the accused, who may choose trial before a magistrate, judge alone, or judge and jury.

Summary offences are tried only by summary conviction court which is usually presided over by a magistrate.

TYPES OF SENTENCE

A court may suspend a sentence, if the accused complies with a probation order requiring him to be on good behaviour and to appear before the court when required. There may also be optional conditions attached, including "to report to and be under the supervision of a probation officer or other person designated by the court". In this case, the accused would be counted as receiving a suspended sentence with probation. If a person on probation violates the terms of his probation order, the court can then impose the sentence it earlier suspended.

Persons sentenced to imprisonment for a period less than two years are placed under provincial jurisdiction and sent to a jail, prison or reformatory. If the sentence is for two years or over, the accused becomes a federal responsibility and is sent to a penitentiary.

JUVENILE DELINQUENCY

"A juvenile delinquent, as defined in the Juvenile Delinquents Act, means any child who violates any provision of the Criminal Code or of any Dominion or Provincial Statute or of any By-Law or ordinance of any municipality, or who is guilty of sexual immorality or any similar form of vice, or who is liable by reason of any other act to be committed to an industrial school or juvenile reformatory under the provision of any Dominion or Provincial Statute."[4]

The upper age limit of children brought before the juvenile courts varies from province to province, between 16 and 18 years.

There is much variation across the country in the types of sentences given to juveniles. Most of the sentences are self-explanatory, except for the difference between "probation" and "final disposition suspended". In the first case, the judge finds the juvenile guilty of an offence, assesses a penalty, but then suspends it on condition that the juvenile behaves well in future. If he breaks the terms of his probation, the suspended sentence takes effect. In the second case, the court procedure is suspended before sentence is passed. If the juvenile remains on good behaviour, nothing happens; if not, the case is re-opened and a sentence may be passed.

In **all** juvenile cases, if the judge is dissatisfied with the juvenile's subsequent behaviour, the case can be reheard and a new judgment made. This is possible until the juvenile becomes of age.

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[3] "In certain limited circumstances clearances are made otherwise. The limitations of 'cleared otherwise' are indicated by the following examples: the offender has been committed to a mental hospital and it is unlikely he will be released; a person confesses to the offence and subsequently dies; diplomatic immunity; the offender is known and sufficient evidence has been obtained but the complainant refuses to prosecute". – *Crime Statistics,* Statistics Canada, Ottawa, Catalogue 85-205 – Introduction.

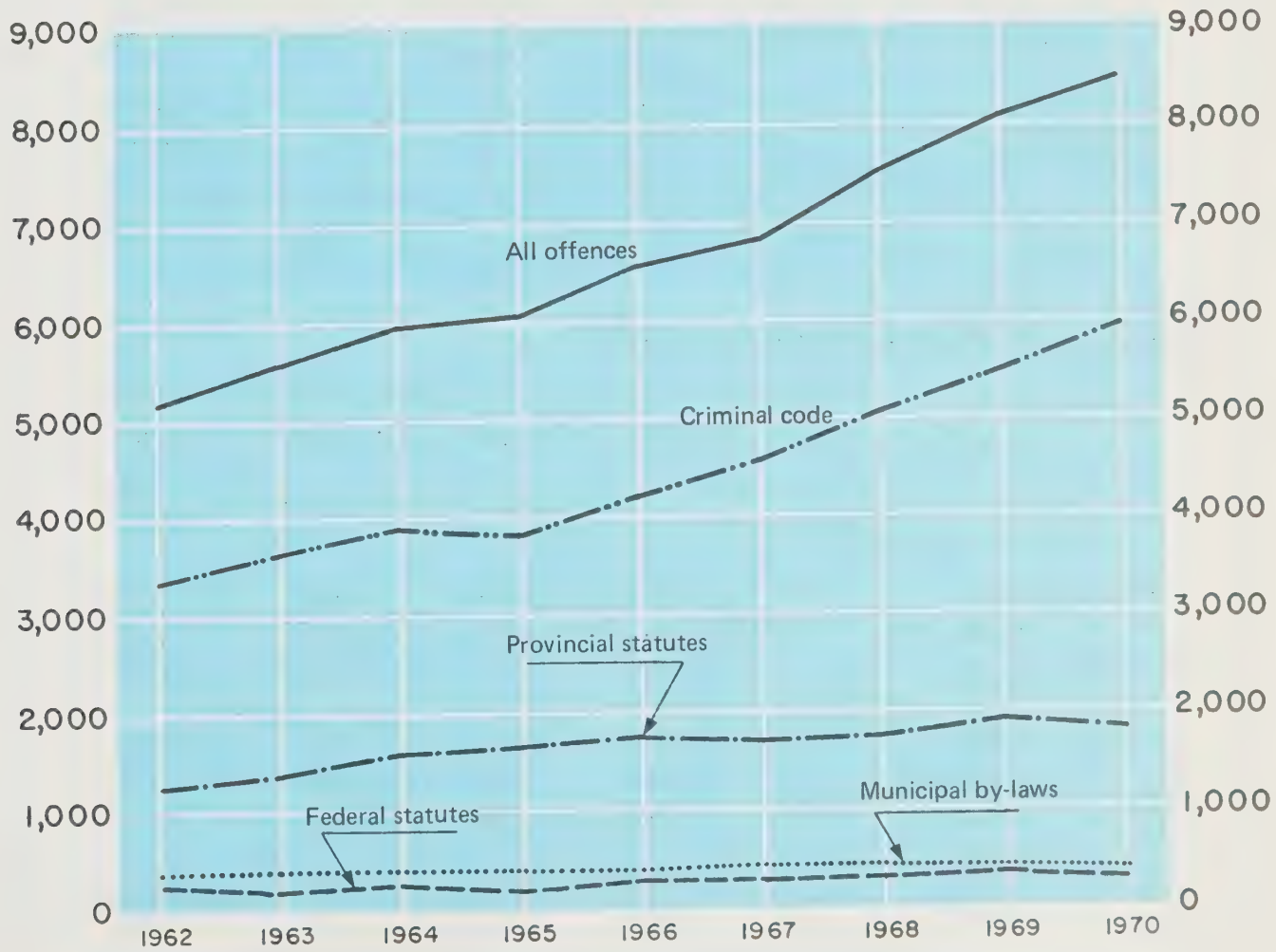
[4] *Juvenile Delinquents,* Statistics Canada, Ottawa, Catalogue 85-202, 1971, p. 9.

Table 14.1
ACTUAL OFFENCES REPORTED, BY OFFENCE GROUP

	1962	1964	1966	1968	1970
			per cent		
Criminal Code[1]	64.6	65.2	64.2	67.2	70.5
Federal Statutes	3.9	3.5	3.3	3.4	3.5
Provincial Statutes	24.6	25.9	26.5	23.8	21.3
Municipal By-laws[2]	6.9	5.4	6.0	5.6	4.7
TOTALS	100.0	100.0	100.0	100.0	100.0
Thousands of offences	797	961	1,095	1,335	1,574

1) From 1968 on, arson is included in Criminal Code offences (arson was not previously included in offence statistics).
2) Except traffic offences.

Chart 14.2
OFFENCE RATE(1), BY OFFENCE GROUP



1) Rate per 100,000 of population seven years and older.

Table 14.3
OFFENCE RATE BY PROVINCE[1]

	1962	1964	1966	1968	1970
CANADA	5,165	5,986	6,517	7,508	8,459
Newfoundland	3,354	4,308	4,882	5,778	6,296
Prince Edward Island	4,445	5,556	6,858	7,543	8,001
Nova Scotia	4,738	5,876	6,149	6,704	7,520
New Brunswick	2,884	4,362	5,517	5,808	6,054
Quebec	3,310	3,674	4,069	4,880	5,329
Ontario	5,285	6,233	6,617	7,679	8,882
Manitoba	5,725	6,424	6,625	8,172	9,372
Saskatchewan	6,592	6,775	7,579	8,961	10,050
Alberta	7,596	8,599	9,483	10,704	12,471
British Columbia	8,760	10,389	11,232	12,067	12,732
Yukon[2]	...	...	...	28,675	33,331
Northwest Territories[2]	...	...	...	22,803	31,929

1) Rate per 100,000 of population seven years and older.
2) Because of small population base, Yukon and Northwest Territories rates not calculated before 1967.

Table 14.4
OFFENCE RATE, BY SIZE OF MUNICIPALITY[1]

	1962	1964	1966	1968	1970
250,000 and over	6,468	7,068	7,298	8,228	9,094
100,000 - 250,000	6,163	6,954	5,781	6,864	7,995
50,000 - 100,000	4,502	5,190	5,221	6,127	7,047
25,000 - 50,000	3,545	4,001	4,372	5,893	6,117
10,000 - 25,000	3,906	4,000	5,004	5,417	6,225
5,000 - 10,000	3,312	3,395	4,539	5,446	6,047
2,500 - 5,000	3,440	4,148	5,392	6,052	7,200
750 - 2,500	4,663	4,988	6,155	5,492	7,338
CANADA	4,245	4,943	5,406	6,378	7,301

1) Rate per 100,000 of population seven years and older.

Chart 14.5
OFFENCE RATE, BY SIZE OF MUNICIPALITY

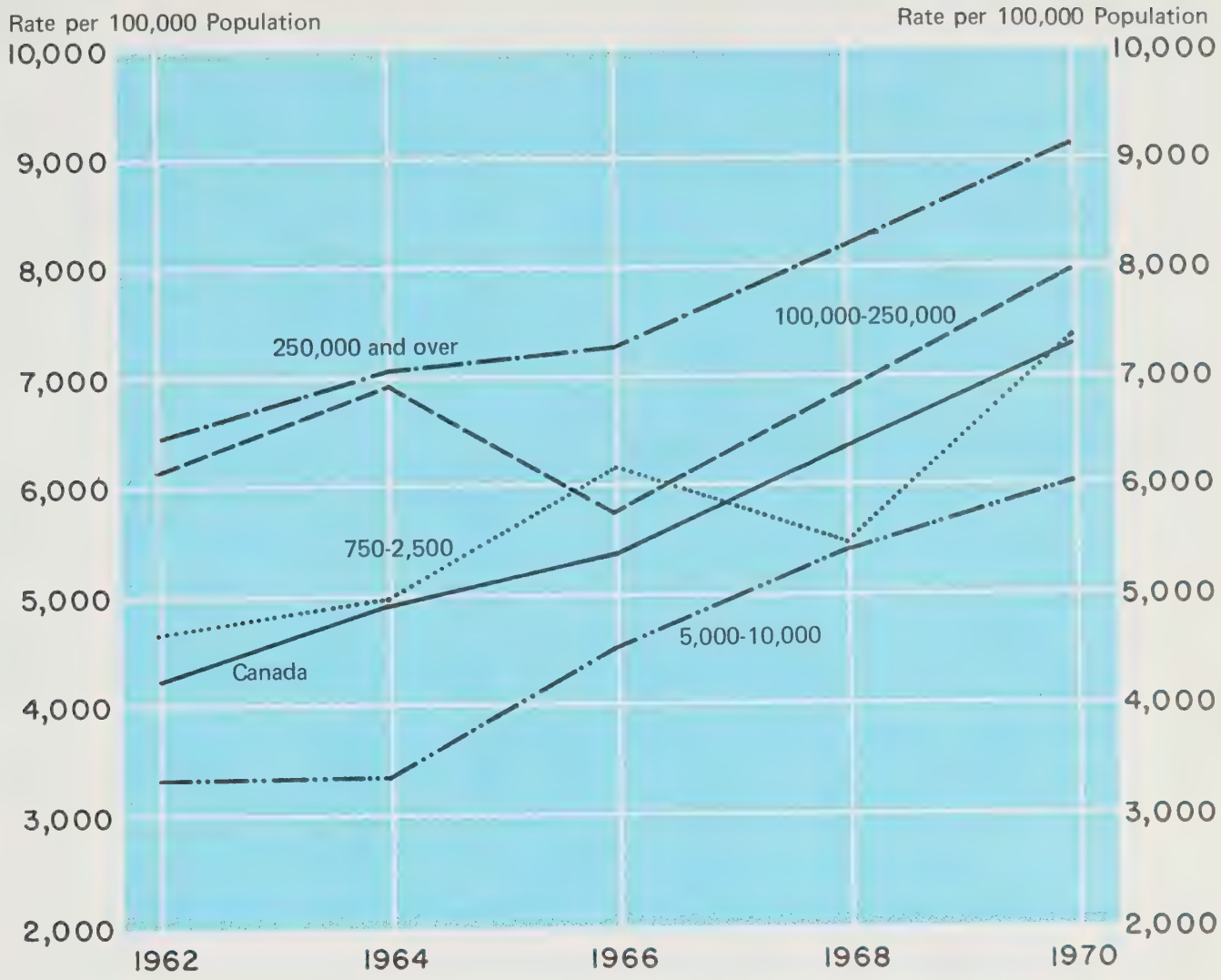


Table 14.6
PERCENTAGE OF OFFENCES CLEARED,[1] BY OFFENCE GROUP

	1962	1964	1966	1968[2]	1970[2]
Criminal Code	36.5	37.7	37.7	36.2	35.9
Federal Statutes	85.2	84.2	87.6	86.1	84.0
Provincial Statutes	94.8	94.2	94.8	96.0	96.3
Municipal By-laws	88.6	82.0	88.0	87.3	86.6
ALL OFFENCES	56.3	56.4	57.5	55.0	52.8

1) Cleared by charge or otherwise.
2) From 1968 on, arson is included in Criminal Code offences (arson was not previously included in offence statistics).

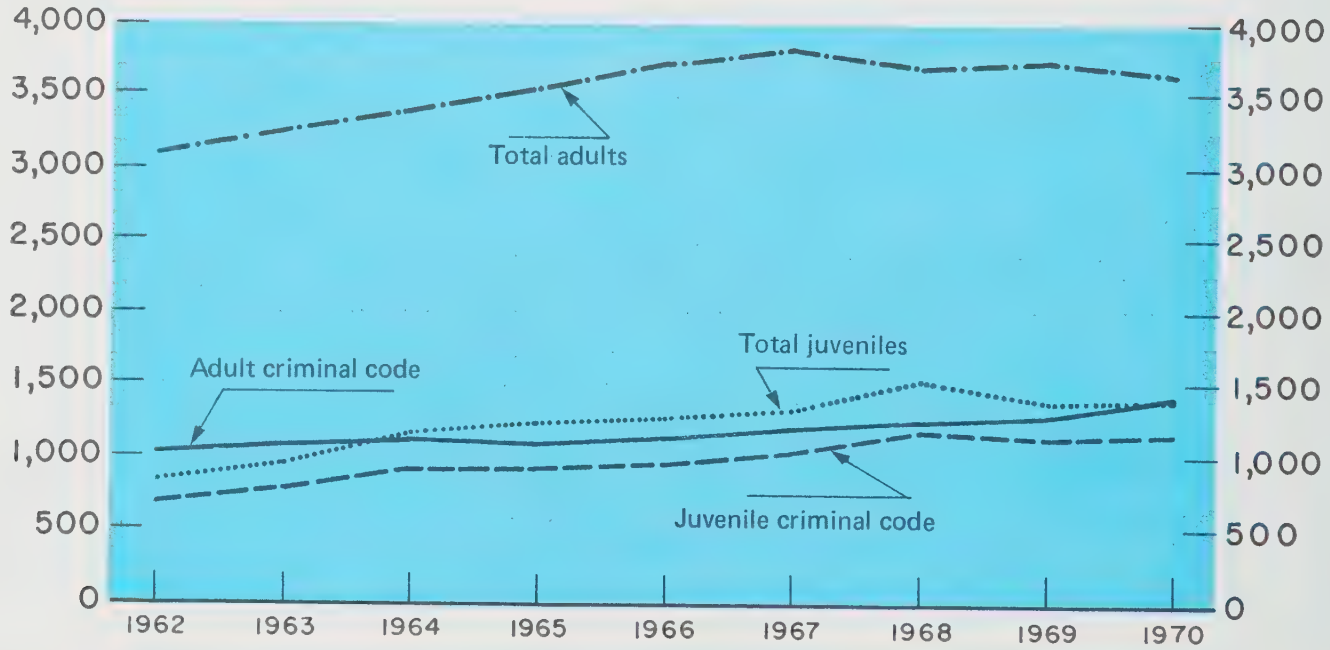
Table 14.7
ADULTS CHARGED, BY OFFENCE GROUP

	1962	1964	1966	1968	1970
			per cent		
Criminal Code	33.4	33.6	30.5	33.8	38.7
Federal Statutes	6.3	5.3	5.6	6.1	6.4
Provincial Statutes	49.3	53.1	54.7	50.0	46.3
Municipal By-laws	11.0	8.0	9.2	10.1	8.6
TOTALS	100.0	100.0	100.0	100.0	100.0
Thousands charged	369	409	468	491	509

Table 14.8
JUVENILES CHARGED, BY OFFENCE GROUP

	1962	1964	1966	1968	1970
			per cent		
Criminal Code	82.4	80.5	75.0	79.0	82.9
Federal Statutes	2.6	3.4	2.4	3.1	3.4
Provincial Statutes	10.8	13.7	17.2	13.8	11.4
Municipal By-laws	4.2	2.4	5.4	4.1	2.3
TOTALS	100.0	100.0	100.0	100.0	100.0
Number of juveniles	31,913	45,464	52,956	66,327	63,140

Chart 14.9
RATE(1) OF CHARGES LAID, ADULTS AND JUVENILES



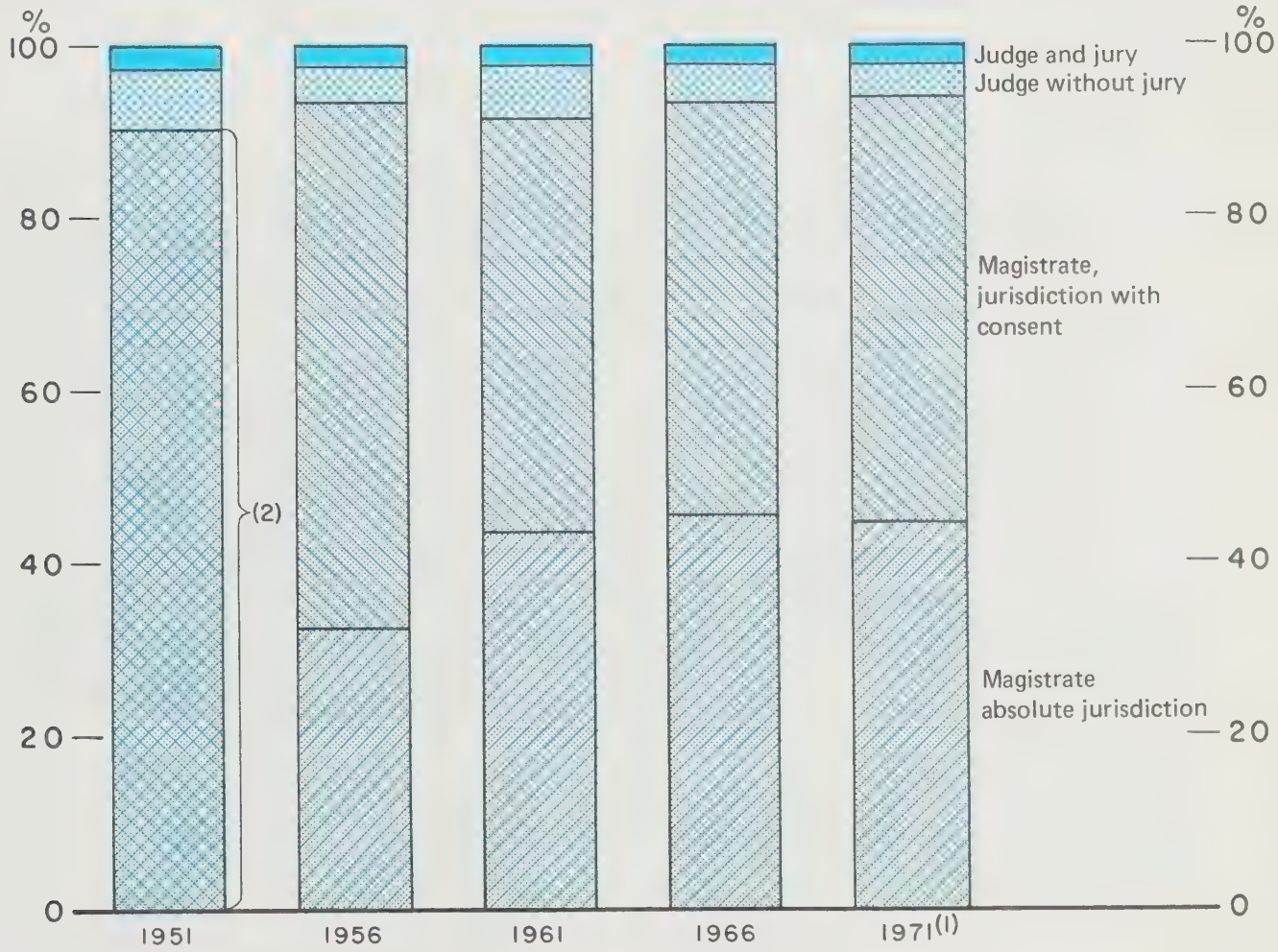
1) Rate per 100,000 of relevant age group.

Table 14.10
TYPE OF TRIAL FOR ADULTS CHARGED WITH AN INDICTABLE OFFENCE

	1951	1956	1961	1966	1971[1]
			per cent		
Judge and jury	2.8	2.4	2.2	2.1	2.1
Judge without jury	7.0	4.1	6.1	4.8	3.7
Magistrate, jurisdiction with consent	90.2	61.0	48.1	47.4	49.5
Magistrate, absolute jurisdiction	2	32.5	43.6	45.7	44.7
TOTALS	100.0	100.0	100.0	100.0	100.0
Number charged	34,181	30,838	43,161	51,079	54,098

1) Excludes Quebec and Alberta.
2) Included in count for "Magistrate, jurisdiction with consent", in 1951.

Chart 14.11
TYPE OF TRIAL FOR ADULTS CHARGED WITH AN INDICTABLE OFFENCE



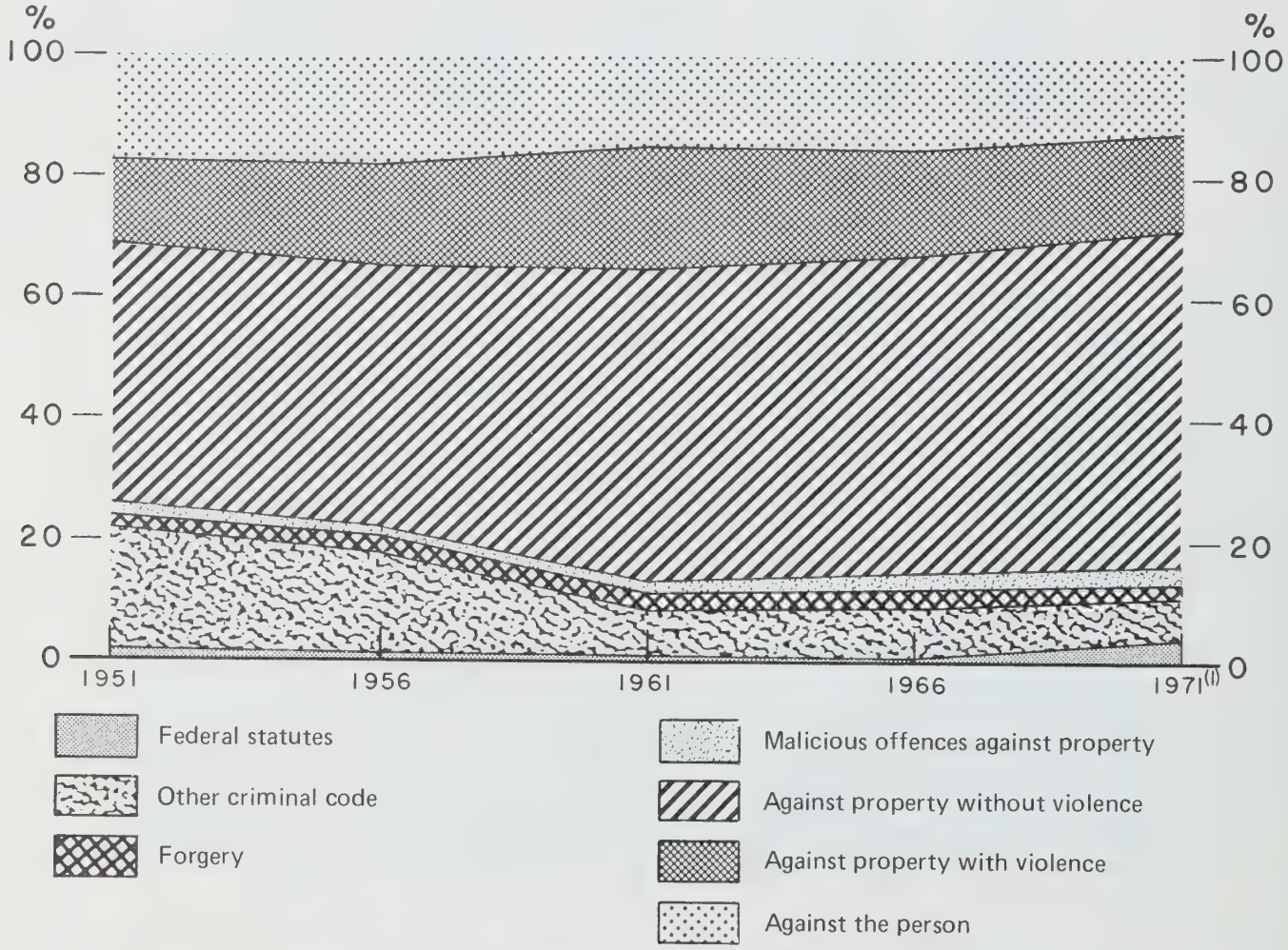
(1) Excludes Quebec and Alberta
(2) Includes "magistrate, jurisdiction with consent" and "magistrate, absolute jurisdiction".

Table 14.12
CONVICTIONS FOR INDICTABLE OFFENCES, BY TYPE OF OFFENCE

	1951	1956	1961	1966	1971[1]
			per cent		
Against the person	17.7	18.0	14.5	15.2	12.1
Against property, with violence	13.4	16.7	20.3	17.4	16.0
Against property, without violence	42.8	42.8	51.3	52.5	55.7
Malicious offences against property	2.0	1.9	2.1	2.8	2.9
Forgery, etc.	2.0	2.5	3.3	2.5	2.6
Other Criminal Code offences	20.5	16.6	7.2	8.7	6.7
Federal Statutes	1.6	1.5	1.3	0.9	4.0
TOTALS	100.0	100.0	100.0	100.0	100.0
Number of convictions	28,980	27,413	38,679	45,670	47,874

1) Excludes Quebec and Alberta.

Chart 14.13
CONVICTIONS FOR INDICTABLE OFFENCES, BY TYPE OF OFFENCE



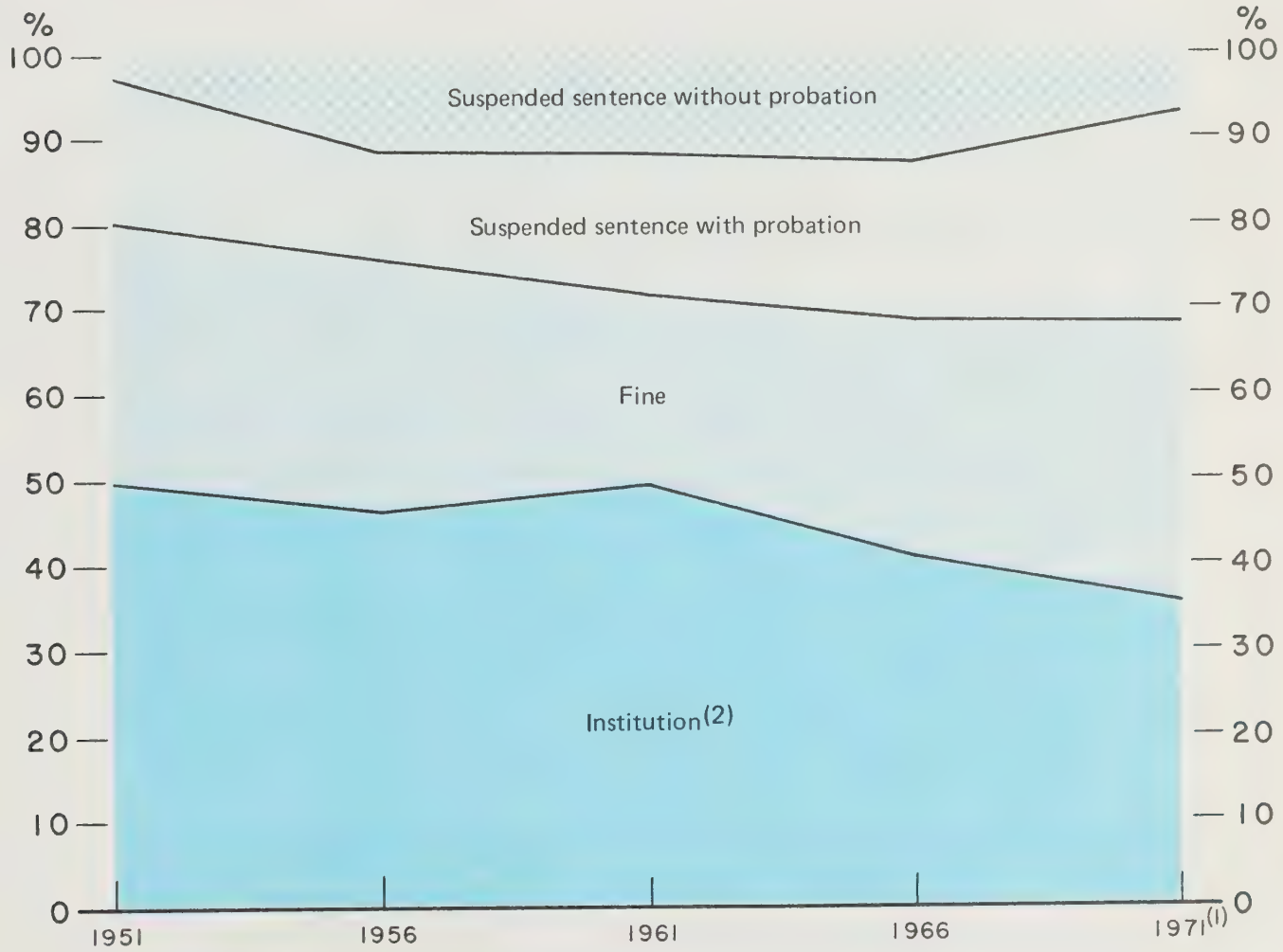
1) Excludes Alberta and Quebec.

Table 14.14
SENTENCES FOR INDICTABLE OFFENCES

	1951	1956	1961	1966	1971[1]
			per cent		
Suspended sentence without probation	6.3	11.4	11.6	12.5	7.0
Suspended sentence with probation	13.5	12.7	16.9	18.7	24.6
Fine	30.3	29.4	22.0	28.0	32.7
Institution[2]	49.9	46.5	49.5	40.8	35.7
TOTALS	100.0	100.0	100.0	100.0	100.0
Number of sentences	28,980	27,413	38,679	45,661	47,874

1) Excludes Quebec and Alberta.
2) Includes jails, reformatories, industrial farms, training schools and penitentiaries.

Chart 14.15
SENTENCES FOR INDICTABLE OFFENCES



1) Excludes Quebec and Alberta.
2) Includes jails, reformatories, industrial farms, training schools and penitentiaries.

Table 14.16
SENTENCES FOR INDICTABLE OFFENCES, BY TYPE OF OFFENCE, 1967

	No. of persons convicted (100%)	Suspended sentence without probation	Suspended sentence with probation	Fine	Institution
			per cent		
Against the person[1]	6,948	9.0	8.6	45.6	36.8
Against property, with violence	7,965	10.5	28.0	2.3	59.2
Against property, without violence	23,939	15.0	20.2	30.0	34.8
Malicious offences against property	1,250	13.6	22.2	34.8	29.4
Forgery, etc.	1,151	13.2	19.3	2.2	65.3
Other Criminal Code	3,989	8.0	8.2	43.8	40.0
Federal Statutes	428	7.9	11.9	6.1	74.1
TOTAL NUMBER OF SENTENCES	45,670	5,729	8,538	12,778	18,625

1) Includes 9 sentences of death under "Institution".

Table 14.17
CONVICTIONS FOR SUMMARY OFFENCES, BY OFFENCE GROUP

	1956	1961	1966	1971[1]
		per cent		
Criminal Code	5.5	6.8	5.7	7.3
Federal Statutes	2.5	2.6	1.6	2.1
Provincial Statutes[2]	13.8	17.5	14.8	12.6
Traffic offences (Provincial)	49.7	53.7	57.1	69.8
Municipal By-laws[2]	4.1	4.0	4.6	2.2
Traffic Offences (Municipal)	24.4	15.4	16.2	6.0
TOTALS	100.0	100.0	100.0	100.0
Thousands of convictions	1,138	1,321	1,942	1,439

1) Excludes Quebec, Alberta and the Yukon.
2) Except minor traffic offences, which are listed separately.

Table 14.18
DELINQUENCIES, BY TYPE OF OFFENCE

	1951	1956	1961	1966	1968
			per cent		
Criminal Code:					
Against the person	2.8	2.8	2.5	2.8	3.1
Against property, with violence	23.2	21.0	23.1	21.7	24.9
Against property, without violence	38.6	39.8	42.3	42.1	38.7
Wilful acts against property	11.5	9.3	8.2	8.3	6.6
Other Criminal Code[2]	23.9	27.1	5.2	6.3	6.7
Federal Statutes	1	1	7.4	4.6	6.0
Provincial Statutes	1	1	7.2	10.8	9.7
Municipal By-laws	1	1	4.1	3.4	4.3
TOTALS	100.0	100.0	100.0	100.0	100.0
Number of delinquencies	6,644	8,985	15,215	20,310	27,142

1) For 1951 and 1956, delinquencies under Federal and Provincial Statutes and Municipal By-laws are included under "Other Criminal Code".
2) Includes forgery and related offences.

Table 14.19
DISPOSITION OF JUVENILES FOUND DELINQUENT

	1951	1956	1961	1966	1968
			per cent		
Released on probation	37.1	39.6	52.5	58.3	54.8
Fine or restitution	21.6	22.4	14.1	11.5	13.7
Training school	17.2	16.0	13.0	9.7	8.0
Final disposition suspended	18.8	17.6	16.2	16.1	18.7
Other[1]	5.3	4.4	4.2	4.4	4.8
TOTALS	100.0	100.0	100.0	100.0	100.0
Number of delinquencies	6,644	8,985	15,215	20,310	27,142

1) Includes reprimand, indefinite detention, and small numbers sent to mental hospital or sentenced to corporal punishment.

Chart 14.20
CORRECTIONAL INSTITUTION POPULATION, BY TYPE OF INSTITUTION

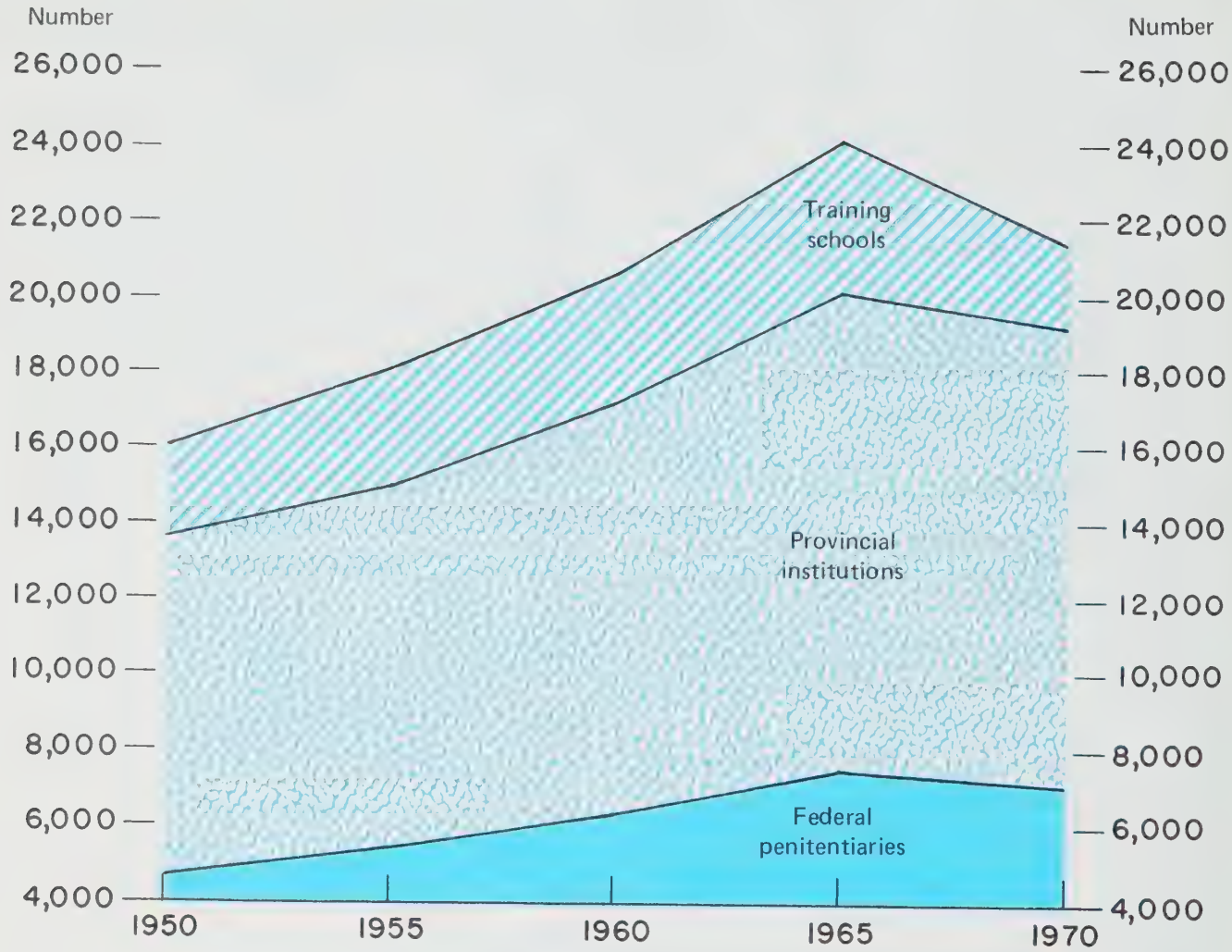


Table 14.21
RELATIONSHIP OF MURDER SUSPECTS AND VICTIMS

	1962	1964	1966	1968	1970
Domestic:					
Immediate family	61	56	68	89	85
Kinship	12	8	9	15	13
Common-law	14	14	15	19	21
Not related:					
Commission of criminal act	33	39	45	69	77
Other	65	89	87	108	156
TOTAL SUSPECTS[1]	185	206	224	300	352
TOTAL VICTIMS	217	218	221	315	432

1) In domestic murder incidents involving more than one suspect and/or victim, the incident is scored only once, and that according to the closest relationship of the accused to the victim(s).

Table 14.22
PERCENTAGE OF THOSE CONVICTED FOR INDICTABLE OFFENCES WHO ARE IMPRISONED[1]

	1951	1956	1961	1966	1971
Newfoundland	43	44	53	32	27
Prince Edward Island	70	43	55	37	34
Nova Scotia	43	38	40	39	34
New Brunswick	48	59	49	45	34
Quebec	58	45	50	37	. .
Ontario	50	47	47	39	33
Manitoba	45	40	38	36	37
Saskatchewan	56	44	51	41	38
Alberta	51	49	51	44	. .
British Columbia	37	46	54	46	43
CANADA	50	46	49	40	. .

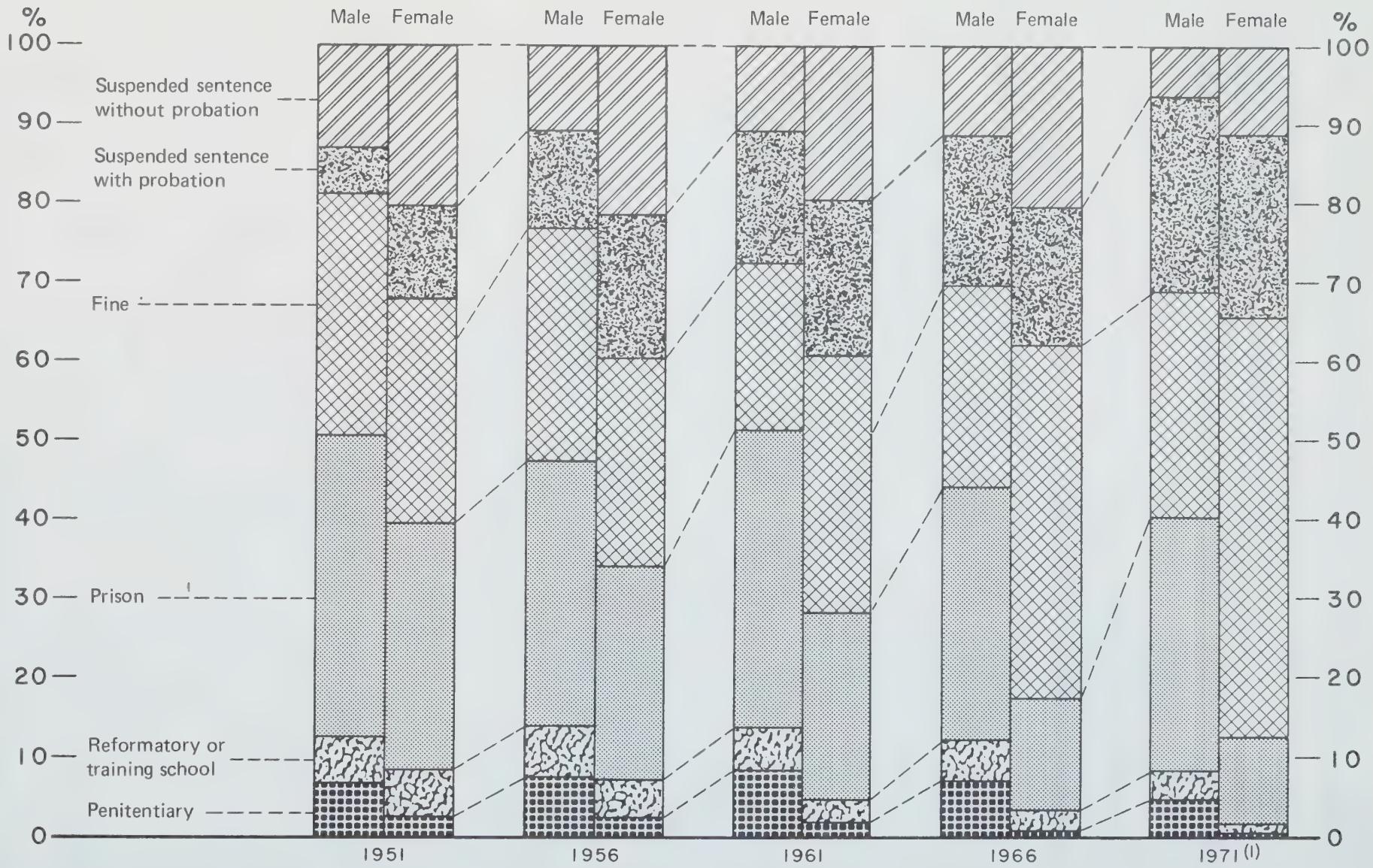
1) Includes jail, reformatory, penitentiary, training school, and industrial farm.

Table 14.23
CHARGES FOR INDICTABLE OFFENCES, BY SEX

	1951	1956	1961	1966	1971[1]
	rate per 100,000 population of given sex				
Male	448.0	355.4	429.2	444.9	420.9
Female	35.0	23.5	39.9	63.7	80.4
RATIO (male/female)	12.8	15.1	10.8	7.0	5.2

1) Excludes Quebec and Alberta.

Chart 14.24
SENTENCES OF PERSONS CONVICTED OF INDICTABLE OFFENCES, BY SEX



1) Excludes Quebec and Alberta.

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Unless otherwise stated, the sources cited are from Statistics Canada.

INTRODUCTORY ISODEMOGRAPHIC MAPS

Skoda, L. and Robertson, J.C., *Isodemographic Map of Canada,* Geographical Paper No. 50, Lands Directorate, Environment Canada (Ottawa: Information Canada, 1972).

Chapter 1
POPULATION GROWTH, DISTRIBUTION AND COMPOSITION

1. 1 *1951 Census of Canada,* Vol. I; *1961 Census of Canada,* Bulletin 7.1-2, Catalogue 99-512; *1971 Census of Canada,* Bulletin AP-3, Catalogue 92-754 and AP-4, Catalogue 92-755.

1. 2 *1951 Census of Canada,* Vol. X; *1961 Census of Canada,* Bulletin 7.1-1, Catalogue 99-511; *1971 Census of Canada,* Bulletin 1.1-3, Catalogue 92-703; Population Estimates and Projections, Census Field, Statistics Canada, unpublished data.

1. 3 *1941 Census of Canada,* Vol. V; *1951 Census of Canada,* Vol. X; *1961 Census of Canada,* Bulletin 7.1-1, Catalogue 99-511; *1971 Census of Canada,* Bulletin 1.1-9, Catalogue 92-709; Population Estimates and Projections, Census Field, Statistics Canada, unpublished data.

1. 4 *Population by Sex and Age, 1921-1966,* Catalogue 91-511; *Annual Estimates of Population,* Catalogue 91-201 (1972).

1. 5 *Vital Statistics,* Annual Report (1956), Catalogue 84-202; *Vital Statistics,* Preliminary Annual Report (1971), Catalogue 84-201.

1. 6 *Immigration Statistics,* 1921-1971, Canada Manpower and Immigration; Population Estimates and Projections, Census Field, Statistics Canada, unpublished data.

1. 7 *Vital Statistics,* Annual Report (1961), Catalogue 84-202; *Vital Statistics,* Preliminary Annual Report (1971), Catalogue 84-201.

1. 8 Stone, L.O., *Urban Development in Canada,* 1961 Census Monograph, Ottawa: Queen's Printer, 1967; *1971 Census of Canada,* Bulletin 1.1-9, Catalogue 92-709.

1. 9 *1951 Census of Canada,* Vol. I; *1971 Census of Canada,* Bulletin 1.2-3, Catalogue 92-715.

1.10

1.11 Ministry of State for Urban Affairs, unpublished data; Geography Section, Census Field, Statistics Canada, unpublished data.

1.12 *1951 Census of Canada,* Vol. I; *1971 Census of Canada,* Bulletin 1.2-3, Catalogue 92-715.

1.13 *1961 Census of Canada,* Bulletin 7.1-4, Catalogue 99-514; *1971 Census of Canada,* Bulletin 1.4-2, Catalogue 92-730.

1.14 *1941 Census of Canada,* Vol. I; *1951 Census of Canada,* Vol. X; *1961 Census of Canada,* Bulletin 1.2-3, Catalogue 92-543; *1971 Census of Canada,* Bulletin 1.2-4, Catalogue 92-716.

1.15

1.16 *1931 Census of Canada,* Vol. I; *1941 Census of Canada,* Vol. III; *1951 Census of Canada,* Vol. II; *1961 Census of Canada,* Bulletin 7.1-5, Catalogue 99-515; *1971 Census of Canada,* Bulletin 1.4-2, Catalogue 92-730.

Chapter 2
FAMILY FORMATION AND COMPOSITION

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